



**NAVY TRAINING SYSTEM PLAN**

**FOR THE**

**AN/ASD-12(V)**

**SHARED RECONNAISSANCE POD**

**N78-NTSP-A-50-0121/A**

**JANUARY 2004**

## **AN/ASD-12(V) SHARED RECONNAISSANCE POD**

### **EXECUTIVE SUMMARY**

This Approved Navy Training System Plan was developed to identify the life cycle manpower, personnel, and training requirements associated with the AN/ASD-12(V) Shared Reconnaissance Pod (SHARP). The SHARP system will replace the existing LA-610 Tactical Air Reconnaissance Pod System (TARPS) currently used on the F-14 Aircraft. In Fiscal Year (FY) 03, the F-14 began phase-out, as the role of the Navy's tactical reconnaissance aircraft transitions to the F/A-18F Super Hornet. The SHARP system will employ an organic, all-weather, day and night, manned, tactical air reconnaissance capability providing continuous and immediate intelligence support to the Battle Group Commander in the prosecution of independent, joint, or combined operations, as well as providing intelligence data for the security of those forces under his/her command.

The SHARP program is an Acquisition Category III program and is currently in the System Development and Demonstration phase of the Defense Acquisition System, approaching Milestone C. Developmental Test is in its early stages and is being conducted at NAVAIR Patuxent River, Maryland.

The SHARP components are of a Non-Developmental design consisting of modified Commercial and Non-Developmental Item equipment provided by the Raytheon Corporation and Recon/Optical Incorporated.

Navy F/A-18F Combat Capable Weapons Sensor Officer personnel with Navy Officer Billet Classification (NOBC) 1321 operate and monitor the reconnaissance data collection onboard the aircraft.

Maintenance of the SHARP system will be performed at three levels: organizational, intermediate, and depot. Aviation Electronics Technicians (AT) and Photographer's Mates (PH) with Navy Enlisted Classification (NEC) 8841 or 8341 will perform organizational level maintenance. Intermediate level maintenance will be performed by AT personnel who will be assigned a new NEC, *66XX, SHARP Intermediate Maintenance Technician*. Civilian personnel at organic and/or contractor facilities will perform depot level maintenance.

The SHARP program anticipates making maximum use of the existing F-14 TARPS infrastructure and billet structure to provide the SHARP capability to the F/A-18F. Current F-14 instructors will be utilized to support SHARP training. An analysis of organizational manpower requirements was performed by AIR 3.4.1. Results indicate that manpower requirements are less than those required for organizational level maintenance of the predecessor system, the F-14 TARPS. Because the intermediate level SHARP repair skill must be available to support repairs of equipment failures, the requirement will create the need for an increase of one technician per intermediate level SEAOPDET.



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Training for aircrew and organizational level maintenance personnel will be modified to reflect the SHARP integration. Follow-on training for intermediate level maintenance AT personnel will be accomplished by developing a new SHARP maintenance training course, *C-XXX-XXXX, SHARP Intermediate Maintenance Technician Pipeline*. Training for Photographer's Mate (PH) and Intelligence Specialist (IS) reconnaissance imaging and interpretation personnel will be unaffected by the SHARP integration and no changes are reflected in this NTSP at this time.

## AN/ASD-12(V) SHARED RECONNAISSANCE POD

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**AN/ASD-12(V) SHARED RECONNAISSANCE POD**

**LIST OF ACRONYMS**

AIMD	Aircraft Intermediate Maintenance Department
AMTCS	Aviation Maintenance Training Continuum System
AO	Aviation Ordnanceman
AT	Aviation Electronics Technician
ATARS	Advanced Tactical Airborne Reconnaissance System
BIT	Built-In Test
CAI	Computer-Aided Instruction
CANDI	Commercial And Non-Developmental Item
CAU	Cold Air Unit
CBT	Computer-Based Training
CNATT	Center for Naval Aviation Technical Training
CNO	Chief of Naval Operations
COMLANFLT	Commander, Atlantic Fleet
COMPACFLT	Commander, Pacific Fleet
CVIC	Aircraft Carrier Intelligence Center
DT	Developmental Test
ECS	Environmental Control System
EMD	Engineering and Manufacturing Development
EOT	Electro-Optical Tester
FMS	Foreign Military Sales
FY	Fiscal Year
HPRR	Human Performance Readiness Review
IS	Intelligence Specialist
JSIPS	Joint Service Imagery Processing System
LP	Low Pressure
MTIP	Maintenance Training Improvement Program
MTS	Maintenance Trainer Set
MTU	Maintenance Training Unit

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**LIST OF ACRONYMS**

NA	Not Applicable
NAF	Naval Aviation Facility
NAMTRAU	Naval Air Maintenance Training Unit
NAS	Naval Air Station
NATOPS	Naval Aviation Training and Operating Procedures Standardization
NAVAIR	Naval Air Systems Command
NEC	Navy Enlisted Classification
NTSP	Navy Training System Plan
OEM	Original Equipment Manufacturer
OPO	OPNAV Principal Official
OT	Operational Test
PAO	Polyalphaolephin
PCMCIA	Personal Computer Memory Card International Association
PH	Photographer's Mate
PMA	Program Manager, Air
PSE	Peculiar Support Equipment
PTT	Part Task Trainer
QRA	Quick Response Assessment
RFI	Ready For Issue
RFT	Ready For Training
SEAOPDET	Sea Operational Detachment
SERE	Survival, Evasion, Resistance, and Escape
SHARP	Shared Reconnaissance Pod
SMS	Stores Management System
TARPS	Tactical Air Reconnaissance Pod System
TBD	To Be Determined
TD	Training Device
TOFT	Tactical Operational Flight Trainer
TTE	Technical Training Equipment
VF	Fighter Squadron



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**LIST OF ACRONYMS**

VFA	Strike Fighter Squadron
WRA	Weapon Replaceable Assembly
WSO	Weapons Sensor Officer
WTT	Weapons Tactics Trainer



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## **AN/ASD-12(V) SHARED RECONNAISSANCE POD**

### **PREFACE**

This Approved Navy Training System Plan (NTSP) for the AN/ASD-12(V) Shared Reconnaissance Pod (SHARP) program has been developed to comply with the guidelines set forth in the Navy Training Requirements Documentation Manual, OPNAV Publication P-751-1-97. This NTSP was developed to update the Proposed NTSP N78-NTSP-A-50-0121/P, dated September 2003, incorporating comments received. The comments incorporated served to clarify the training concept.



## **PART I - TECHNICAL PROGRAM DATA**

### **A. NOMENCLATURE-TITLE-PROGRAM**

**1. Nomenclature-Title-Acronym.** AN/ASD-12(V) Shared Reconnaissance Pod (SHARP)

**2. Program Element.** 0305207N

### **B. SECURITY CLASSIFICATION**

- 1. System Characteristics** ..... Unclassified
- 2. Capabilities** ..... Unclassified
- 3. Functions** ..... Unclassified

### **C. MANPOWER, PERSONNEL, AND TRAINING PRINCIPALS**

OPNAV Principal Official (OPO) Program Sponsor ..... CNO (N78)

OPO Resource Sponsor..... CNO (N78C1)

Developing Agency ..... NAVAIR (PMA265)

Training Agency ..... COMLANTFLT (N72)  
 ..... COMPACFLT (N70)  
 ..... CNATT FID (N5)

Training Support Agency..... NAVAIR (PMA205)

Manpower and Personnel Mission Sponsor..... CNO (N12)  
 ..... NAVPERSCOM (PERS-4, PERS-404)

Director of Naval Education and Training ..... CNO (N00T)

### **D. SYSTEM DESCRIPTION**

**1. Operational Uses.** The current tactical reconnaissance aircraft is the F-14 configured with the Tactical Air Reconnaissance Pod System (TARPS), equipped with film sensors designed to operate both day and night, in clear weather conditions only. The AN/ASD-12(V) SHARP system will employ an organic, all-weather, day and night, manned, electro optical/infrared tactical air reconnaissance capability, providing continuous and immediate intelligence support to the Battle Group Commander in the prosecution of independent, joint, or

combined operations, as well as providing intelligence data for the security of those forces under his/her command. SHARP will support the following operational tasks:

- Precision Strike
- Maritime Surveillance
- Target Acquisition and Reporting
- Pre-Strike Reconnaissance Targeting
- Suppression of Enemy Air Defense
- Battle Damage Assessment
- Order-of-Battle Maintenance
- Targeting Monitoring
- Surveillance of Special Areas of Lines of Communication
- Indications and Warning
- Drug Interdiction
- Combat Search and Rescue
- Map Supplementing
- Treat Verification
- Humanitarian (Disaster Relief).

**2. Foreign Military Sales.** Australia may be considered for Foreign Military Sales (FMS) for the SHARP program. Multi-platform application is being considered. For further information regarding FMS or other platform applications, contact the Developing Agency, Naval Air Systems Command (NAVAIR) Program Manager, Air (PMA) 265.

**E. DEVELOPMENTAL TEST AND OPERATIONAL TEST.** Developmental Test (DT) is in its early stages and is being conducted at NAVAIR Patuxent River, Maryland. Successful tests have been completed with an empty prototype pod. A demo flight test program of eight flights and an Environmental Control System (ECS) Risk Reduction flight test of six flights have occurred. Engineering and Manufacturing Development (EMD) pods have been lab and ground tested. EMD pods integration flight tests and carrier suitability tests began in November 2002. Early flight-testing has been with medium altitude sensors. High altitude sensors began flight-testing in February 2003. Most of the Weapon Replaceable Assemblies (WRAs) used in SHARP are Commercial And Non-Developmental Items (CANDI), requiring no DT or Operational Test (OT) on the hardware itself. Testing is required for installation and integration onto the aircraft. A Quick Response Assessment (QRA) was conducted by Air Test and Evaluation Squadron Nine (VX-9) at China Lake, California. The QRA was completed in February 2003. Technical Evaluation (TECHEVAL) is being conducted by NAVAIR Patuxent River and China Lake. This TECHEVAL began January 2003. Operational Evaluation (OPEVAL) is scheduled to begin in early April 2004.

**F. AIRCRAFT AND/OR EQUIPMENT/SYSTEM/SUBSYSTEM REPLACED.** The SHARP system will replace the existing TARPS currently used on the F-14 Aircraft. The F-14 is beginning phase-out in Fiscal Year (FY) 03, as the role of the Navy's tactical reconnaissance aircraft transitions to the F/A-18F Super Hornet. SHARP will have no impact on Marine Corps use of the Advanced Tactical Airborne Reconnaissance System (ATARS) on the F/A-18C/D Aircraft.

## **G. DESCRIPTION OF NEW DEVELOPMENT**

**1. Functional Description.** Depending on the operational requirements of the sensor suite(s) selected, the SHARP system will be capable of optimum performance to 40,000 feet and above altitude aboard the carriage aircraft, under clear to hazy weather conditions, day or night. SHARP will utilize electro-optical, infrared, and radar sensors to provide digital imaging in a hostile environment. Via data link, it will present information and imagery obtained on tactical targets to a Joint Services Imagery Processing System (JSIPS) station afloat or ashore to allow for real-time reconnaissance data interpretation. Communication between the SHARP pod and the F/A-18F Super Hornet is via the 1760 Multiplex Bus.

**2. Physical Description.** The SHARP Pod design is based on the shape and size of the 330-gallon auxiliary fuel tank. The SHARP Pod is mounted to the SUU-73 Pylon on the aircraft center line on Weapon Station 6 using standard adapter equipment to interface with the BRU-32 bomb rack mounted to the large, raised, dorsal strong-back that extends along the upper third of the pod.

SHARP is composed of seven primary subsystems:

- Data Link
- Sensor
- Environmental Control System (ECS)
- Power Distribution
- Data Storage
- Navigation
- Personal Computer Memory Card International Association (PCMCIA) Interface

The ECS subsystem, separate from the F/A-18F ECS system, circulates liquid coolant throughout the pod to regulate internal temperature as well as maintaining the pressure and humidity within the pod. Ram air flow (in-flight) or an alternate (ground) source of low pressure air must be applied to the ECS compressor section to drive the primary cold air unit turbine and thermally stabilize the sensor optics.

The following are dimensions and physical characteristics of the SHARP Pod:

Length ..... 188 inches  
Width ..... 29 inches  
Weight ..... 2100 pounds

**3. New Development Introduction.** The SHARP is being procured through new production.

**4. Significant Interfaces.** The SHARP ECS requires a stable air source to properly operate and cool the pod while on deck afloat and ashore. Shipboard modification requirements have been evaluated and are determined to be a 50-foot hose connected between a deck edge or hanger deck Low Pressure (LP) air standpipe and the SHARP Secondary Cold Air Unit (CAU) snap fitting on the pod. LP air drives the Secondary CAU, which powers the Primary ECS Turbine to cool the pod. A POA Chiller Cart will perform shore-based cooling. Built-In Test (BIT) checking the pod off-aircraft would also negate the requirement for applying cooling to the aircraft.

SHARP will provide digitally formatted data via an internal data link to a ground or ship based JSIPS station for processing, exploitation, and report generation and dissemination. Upon return from the mission, the data will be downloaded from the airborne Data Transfer Cartridge and transported to the Tactical Input Segment (TIS) for playback, evaluation, and exploitation of reconnaissance collection, battle damage assessment, and future mission planning.

**5. New Features, Configurations, or Material.** The SHARP does not feature a technological breakthrough but utilizes advanced technology and proven hardware.

## H. CONCEPTS

**1. Operational Concept.** The SHARP imagery is displayed on the center display of the aft cockpit Multipurpose Color Display of the F/A-18F Aircraft, and is operated and monitored by the Weapons Sensor Officer (WSO). SHARP imagery is currently planned to be a series of imagery frames displayed for two to five seconds. In addition to the imagery, the sensor status and BIT information is also displayed within the video. This provides full diagnostic capability for SHARP without having a complex interface with the aircraft mission computer.

**2. Maintenance Concept.** SHARP is planned to employ the traditional three level maintenance approach.

**a. Organizational.** Organizational level maintenance of SHARP is limited to servicing, testing, and limited corrective maintenance of the pod. Servicing consists of routine uploading and downloading of the pod, thermally conditioning the pod when required, checking and replacing desiccant cartridges, and corrosion checks. Fault detection is accomplished by an

initiated BIT using the aircraft or the Electro-Optical Pod Tester, inspection of proper operation and condition of the revolving sensor window, the reading and extraction of maintenance PCMCIA cards that contain BIT and Maintenance History Data, and the installation (preflight) and removal (postflight) of the solid-state memory brick. Failed Digital Storage Cartridges (DSC) and PCMCIA cards can be removed and replaced as part of organizational level corrective maintenance.

**(1) Preventive Maintenance.** Preventive maintenance primarily consists of cleaning, corrosion control, and checking and replacing desiccant cartridges. Preventive maintenance will be performed in accordance with applicable F/A-18F Maintenance Requirements Cards and NAVAIR 01-1A-509.

**(2) Corrective Maintenance.** Corrective maintenance is limited to using BIT to determine system failure and the removal and replacement of the pod. Removed pods will be inducted into the Intermediate Maintenance Activity for repair.

**b. Intermediate.** Fault isolation of the pod WRAs and components will be determined by detailed complex diagnostics of the pod using the Electro-Optical Tester (EOT). Repair and maintenance of the pod consists of the removal and replacement of faulty WRAs, configuring the pod with High or Medium Altitude Sensors as required, and servicing the Polyalphaolephin (PAO) liquid cooling loop. Once faults are isolated and faulty components are replaced, the pod will be tested and verified Ready For Issue (RFI) using the EOT.

**c. Depot.** The Original Equipment Manufacturer (OEM) will perform all maintenance and repairs beyond the capability of the intermediate maintenance level. Though organic depot maintenance capability is currently unfunded, it is expected that SHARP will probably utilize a combination of organic and OEM depots.

**d. Interim Maintenance.** Raytheon Technical Systems is providing interim intermediate maintenance support. Current support is limited to the removal and replacement of the faulty WRAs to restore the system to operational readiness as quickly as possible. Intermediate level maintenance support is performed by a Raytheon Technical Representative and involves fault verification of failed WRAs utilizing the EOT. The OEM will provide interim organizational and depot level support during DT and OT. Other contracts for interim support may be established.

The Material Support Date is currently scheduled for March 2006 and Navy Support Date is scheduled for March 2007. Replacement parts required to support the interim maintenance of SHARP will be locally stored and managed by the Raytheon Technical Representative.

**e. Life Cycle Maintenance Plan.** The life cycle maintenance for the SHARP has not yet been determined. When life cycle maintenance information becomes available it will be included in updates to this document.

**3. Manning Concept.** The SHARP program anticipates making maximum use of the existing F-14 TARPS infrastructure and billet structure to provide the SHARP capability to the F/A-18F. Current F-14 Instructors will be utilized to support SHARP training. An analysis of organizational manpower requirements was performed by AIR 3.4.1. Results indicate that manpower requirements are less than those required for the organizational level maintenance of the predecessor system, the F-14 TARPS. Because the intermediate level SHARP repair skill must be available to support repairs of equipment failures, the requirement will create the need for an increase of one technician per intermediate level SEAOPDET.

A new Navy Enlisted Classification (NEC), *66XX, SHARP Intermediate Maintenance Technician*, will be established for personnel who perform intermediate level maintenance. F-14 TARPS instructor billet infrastructure will be utilized to deliver courseware. SHARP does not increase the instructor billets at this time, however a second intermediate level training site may be stood up at NAMTRAGRU MTU 1038 Lemoore. When and if the decision is made to stand up the second intermediate level training site, the required information will be included in revisions to this NTSP.

**a. Estimated Maintenance Man-Hours per Flight Hour.** The SHARP technical parameter threshold values derived from the SHARP Operational Requirements Document for system reliability, availability, and repair times are as follows:

PARAMETER	THRESHOLD	OBJECTIVE
Operational Availability	70%	85%
Mean Flight Hours Between Operational Mission Failures SHARP Without Datalink	20.0 hours	60.0 hours
Mean Flight Hours Between Operational Mission Failures SHARP With Datalink	14.0 hours	42 hours
Mean Corrective Maintenance Time for Operational Mission Failures	3.5 hours	2.5 hours
Mean Flight Hour Between Unscheduled Maintenance Action	4.0 hours	10.0 hours
Built-In Test (BIT) Fault Detection Rate	75%	94%
BIT Fault Isolation Rate	75%	94%
Mean Flight Hour Between False BIT Indication	8.0 hours	15 hours
Mean Time to Configure Aircraft to/from Reconnaissance	1.0 hour	0.75 hours

**b. Proposed Utilization.** SHARP will be required to operate day and night, and in inclement weather conditions throughout mission duration, or as selected by the operator.

**c. Recommended Qualitative and Quantitative Manpower Requirements**

**(1) Aircrew.** There are no anticipated changes in Aircrew manpower requirements. Aircrew requirements consist of the Pilot and the WSO.

**(2) Maintenance**

**(a) Organizational.** The additional organizational level workload generated by SHARP is considered to be minimal, consisting of upload and download, system checkout, and checking and replacing desiccant cartridges. Aviation Electronics Technician (AT) and Photographer's Mate (PH) personnel in Work Center 240 are currently performing these functions in the F-14 community on the TARPS pods. Based on an assessment of the total workload of Work Center 240, per information provided by PMA265, initial estimates indicate that to support SHARP organizational maintenance functions, each F/A-18F squadron will require the following additional billets:

BILLET	NOBC/NEC	QUANTITY
Photo Officer (Directed billet)	6470	1
PH2	8341	1
PH3	8841	1
PHAN	8841	2
AT3	8841	1

One Aviation Ordnanceman (AO) with NEC 8341 or 8841 (billet currently existing) will be required as a Safety Supervisor during the upload and download of the pod and to arm and de-arm the BRU-32 Bomb Rack. This does not represent an increase in the current AO manning in the F/A-18F activities.

**(b) Intermediate.** Intermediate level maintenance will transfer to Sea Operational Detachment (SEAOPDET) personnel aboard ship and Aircraft Intermediate Maintenance Department (AIMD) personnel ashore after the interim intermediate maintenance support period. Because the intermediate level SHARP repair skill must be available to support repairs of equipment failures, the requirement will create the need for an increase of one technician per intermediate level SEAOPDET. It is estimated that each F/A-18F SEAOPDET will require two AT2s, NEC 66XX, and one ATAN, NEC 0000; and each AIMD require one AT1, NEC 66XX, and two AT2s, NEC 66XX permanent party to support SHARP intermediate level maintenance functions.



(c) **Depot.** OEM personnel will perform all maintenance beyond the capability of the intermediate level. Long term planning includes organic personnel performing maintenance at the depot level.

**(3) Reconnaissance Imaging and Interpretation.** The additional reconnaissance imaging and interpretation level workload generated by SHARP is considered to be minimal. These functions are currently being performed by Photographer's Mate (PH) and Intelligence Specialist (IS) personnel in the Aircraft Carrier Intelligence Center (CVIC) afloat and the Fleet Intelligence Center (FIC) ashore. At the time of this NTSP no additional requirement in manpower is necessary. To support SHARP imagery functions, it is estimated that each CVIC and FIC operating JSIPS will require:

BILLET	NOBC/NEC	QUANTITY
Intelligence Officer (directed billet)	163X	1
PH3	8193	1
PHAN	0000	1
IS2	3925	1
IS2	3926	1

**Note:** The above billets are currently in place at the CVIC and do not represent an increase in manning.

**4. Training Concept.** To ensure a well-defined training program is available for integrating the SHARP system into the F/A-18F community, training for aircrew and the training curriculum for organizational level maintenance personnel will be modified to reflect the SHARP integration. Follow-on SHARP intermediate maintenance training for AT personnel will be accomplished by developing a new, stand alone SHARP maintenance training course, C-XXX-XXXX, *SHARP Intermediate Maintenance Technician*. Training for PH and IS reconnaissance imaging and interpretation personnel will be unaffected by the SHARP integration and no changes will be reflected in this NTSP at this time.

The established training concept for most aviation maintenance training divides "A" School courses into two or more segments called *Core* and *Strand*. Many, organizational level "C" School courses are also divided into separate *Initial* and *Career* training courses. "A" School *Core* courses include general knowledge and skills training for the particular rating, while "A" School *Strand* courses focus on the more specialized training requirements for that rating and a specific aircraft or equipment, based on the student's fleet activity destination. *Strand* training immediately follows *Core* training and is part of the "A" School. Upon



completion of *Core* and *Strand* “A” Schools, graduates going to organizational level activities attend the appropriate *Initial* “C” School for additional specific training. *Initial* “C” School training is intended for students in paygrades E-4 and below. *Career* “C” School training is provided to organizational level personnel, E-5 and above, to enhance skills and knowledge within their field. “A” School graduates going to intermediate level activities attend the appropriate intermediate level “C” School. Intermediate level “C” Schools are not separated into *Initial* and *Career* courses.

**a. Initial Training.** The Boeing Company and the Raytheon Technical Systems Company will provide factory training to aircrew personnel utilizing Grey Book data extracted from DT and OT. Boeing will provide organizational maintenance factory training to AT and AO personnel. Aircrew and organizational maintenance training was completed in second quarter FY03. Raytheon will provide intermediate maintenance training to AT personnel, and provide a Technical Representative to augment SEAOPDET personnel in off-aircraft maintenance. Initial intermediate maintenance training is expected to begin in November / December 2003. Instructor cadre initial training curriculum as applied to SHARP has not been developed as of the date of this NTSP.

<b>Title .....</b>	<b>F/A-18F SHARP Aircrew Familiarization</b>
<b>Description .....</b>	This course provides SHARP initial training to cadre and instructor F/A-18F Pilot and WSO personnel.
<b>Location .....</b>	Contractor facilities
<b>Length .....</b>	5 days
<b>RFT date .....</b>	January 2003 (complete)
<b>TTE/TD .....</b>	SHARP
<b>Prerequisites .....</b>	Qualified F/A-18F Pilot or WSO

**Title .....** **F/A-18F SHARP Organizational Maintenance**

**Description .....** This course provides SHARP initial organizational level maintenance training to instructor and cadre maintenance personnel.

**Location .....** Contractor facilities

**Length .....** 5 days

**RFT date .....** January 2003(complete)

**TTE/TD .....** SHARP

**Prerequisites .....** ° C-100-2020, Avionics Common Core Class A1  
 ° C-100-2018, Avionics Technician Organizational Level Class A1

**Title .....** **SHARP Intermediate Maintenance**

**Description .....** This course provides SHARP initial first degree, intermediate level maintenance training to instructor and cadre maintenance personnel.

**Location .....** Contractor facilities

**Length .....** 5 days

**RFT date .....** January 2003(complete)

**TTE/TD .....** SHARP

**Prerequisites .....** ° C-100-2020, Avionics Common Core Class A1  
 ° C-100-2018, Avionics Technician Intermediate Level Class A1

**b. Follow-on Training**

**(1) F/A-18E/F Aircrew Training Courses.** SHARP training will be incorporated into the following F/A-18 aircrew training. The incorporation of SHARP training will increase the course length by approximately 3.5 hours.

<b>CIN</b>	<b>TITLE</b>	<b>LENGTH</b>	<b>MODEL MANAGER</b>
E-2A-061X	F/A-18E/F Fleet Replacement Pilot Category I	257 days	VFA-122
E-2A-062X	F/A-18E/F Fleet Replacement Pilot Category II	215 days	VFA-122
E-2A-063X	F/A-18E/F Fleet Replacement Pilot Category III	169 days	VFA-122
E-2A-064X	F/A-18E/F Fleet Replacement Pilot Category IV	36 days	VFA-122
E-2D-181X	F/A-18E/F Combat Capable Weapons Sensor Officer Training Category I	229 days	VFA-122
E-2D-182X	F/A-18E/F Combat Capable Weapons Sensor Officer Training Category II	215 days	VFA-122
E-2D-183X	F/A-18E/F Combat Capable Weapons Sensor Officer Training Category III	169 days	VFA-122
E-2D-184X	F/A-18E/F Combat Capable Weapons Sensor Officer Training Category I	36 days	VFA-122

**(2) F/A-18E/F Organizational Maintenance Training Courses.** The following F/A-18E/F organizational level training will be updated to include SHARP. When included, SHARP training will add approximately 8 hours Lab/Training Device and 8 hours Theory/Computer-Aided Instruction (CAI) to the maintenance courses.

<b>Title .....</b>	<b>F/A-18E/F Avionics Systems (Initial) Organizational Maintenance</b>
CIN .....	E-102-0623
Model Manager....	MTU 1038 NAMTRAU Lemoore
Description.....	<p>This track provides training to the first tour Aviation Electronics Technician, including:</p> <ul style="list-style-type: none"> <li>° Fire Control Systems</li> <li>° Communication and Navigation Systems</li> <li>° Identification System</li> <li>° Countermeasure System</li> <li>° SHARP (to be added)</li> <li>° Test and Support Equipment</li> <li>° Publications and Safety Procedures</li> </ul> <p>Upon completion the graduate will be able to perform organizational maintenance on the F/A-18E/F under direct supervision.</p>
Delivery Method..	A blend of 132 hours Practical Application Lab and 231 hours Classroom Theory with SHARP included
Location .....	MTU 1038 NAMTRAU Lemoore
Length .....	Currently 81 days; 83 days with SHARP included
RFT date .....	Currently available
Skill identifier .....	AT 8841
TTE/TD.....	<ul style="list-style-type: none"> <li>° TD-05 Avionics System Maintenance Trainer Set (MTS)</li> <li>° F/A-18E/F Avionics Systems</li> </ul>
Prerequisite .....	<ul style="list-style-type: none"> <li>° C-100-2020, Avionics Common Core Class A1</li> <li>° C-100-2018, Avionics Technician O-Level Class A1</li> </ul>

<b>Title .....</b>	<b>F/A-18E/F Avionics Systems (Career) Organizational Maintenance</b>
CIN .....	E-102-0624
Model Manager....	MTU 1038 NAMTRAU Lemoore
Description.....	<p>This track provides training to the second tour Aviation Electronics Technician, including:</p> <ul style="list-style-type: none"> <li>° Advanced Theory, Operation, Testing, and Troubleshooting</li> <li>° Fire Control Systems</li> <li>° Communication and Navigation Systems</li> <li>° Identification System</li> <li>° Countermeasure System</li> <li>° SHARP (to be added)</li> <li>° Test and Support Equipment</li> <li>° Publications and Safety Procedures</li> </ul> <p>Upon completion the graduate will be able to perform organizational maintenance on the F/A-18E/F Avionics Systems under limited supervision.</p>
Delivery Method..	A blend of 42 hours Practical Application Lab and 146 hours Classroom Theory with SHARP included
Location .....	MTU 1038 NAMTRAU Lemoore
Length .....	Currently 39 days; 41 days with SHARP included
RFT date .....	Currently available
Skill identifier .....	AT 8341
TTE/TD.....	<ul style="list-style-type: none"> <li>° TD-05 Avionics System MTS</li> <li>° F/A-18E/F Avionics Systems</li> </ul>
Prerequisite .....	<ul style="list-style-type: none"> <li>° C-100-2020, Avionics Common Core Class A1</li> <li>° C-100-2018, Avionics Technician Organizational Level Class A1</li> <li>° E-102-0623, F/A-18 E/F Avionics System (Initial) Organizational Maintenance</li> </ul>

The initial and career armament systems training listed below will have SHARP included, but will not cause a change to course length.

<b>CIN</b>	<b>TITLE</b>	<b>LENGTH</b>	<b>MODEL MANAGER</b>
E-646-0642	F/A-18E/F Armament Systems (Initial) Organizational Maintenance	30 days	MTU 1038 NAMTRAU Lemoore
E-646-0644	F/A-18E/F Armament Systems (Career) Organizational Maintenance	11 days	MTU 1038 NAMTRAU Lemoore

The SHARP intermediate maintenance training listed below is being developed as a stand-alone course. F-14 TARPS instructor billet infrastructure will be utilized to deliver courseware. SHARP does not increase the instructor billets at this time however a second intermediate level training site may be stand up in NAMTRAGRU Lemoore. Updates in training sites will be included in revisions to this NTSP.

**Title .....** **SHARP Intermediate Maintenance Technician**

**CIN .....** C-XXX-XXXX

**Model Manager....** MTU 1039 NAMTRAU Oceana

**Description.....** This course will provide training to the Aviation Electronics Technician, including:

- ° Testing and Troubleshooting Procedures
- ° SHARP System Operation and Maintenance
- ° Radio Frequency Theory
- ° Environmental Control Systems
- ° Imaging in Electro-Optical and Infrared Spectrums
- ° Reconnaissance Theory
- ° Safety

Upon completion, the graduate will be able to perform as a SHARP Intermediate Maintenance Technician in a shop environment under limited supervision.

**Delivery Method..** A blend of Practical Application Lab and Classroom Theory

**Location .....** MTU 1038 NAMTRAU Lemoore

**Length .....** 30 days (estimated)

**RFT date .....** October 2003

Skill identifier ..... AT 66XX (E-3 through E-7)

TTE/TD..... ° EOT  
 ° SHARP

Prerequisite ..... ° C-100-2020, Avionics Common Core Class A1  
 ° C-100-2017, Avionics Technician Intermediate Level A1

**c. Student Profiles**

<b>SKILL IDENTIFIER</b>	<b>PREREQUISITE SKILL AND KNOWLEDGE REQUIREMENTS</b>
AT 8341	° C-100-2020, Avionics Common Core Class A1 ° C-100-2018, Avionics Technician Organizational Level Class A1 ° E-102-0623, F/A-18E/F Avionics System (Initial) Organizational Maintenance
AT 8841	° C-100-2020, Avionics Common Core Class A1 ° C-100-2018, Avionics Technician Organizational Level Class A1
AT 66XX	° C-100-2020, Avionics Common Core Class A1 ° C-100-2017, Avionics Technician Intermediate Level Class A1

**d. Training Pipelines. Not Applicable (NA)**

**I. ONBOARD (IN-SERVICE) TRAINING**

**1. Proficiency or Other Training Organic to the New Development.** Proficiency training under consideration would be accomplished through the use of SHARP training system Computer-Based Training (CBT) lessons for intermediate maintenance level personnel. If approved, CBT lessons will be developed and distributed in CD-ROM format to all F/A-18F activities receiving SHARP, NAVAIR Patuxent River, and Naval Air Facility (NAF) Atsugi, Japan.

**a. Maintenance Training Improvement Program.** SHARP will not use the Maintenance Training Improvement Program (MTIP). SHARP will adopt the Aviation Maintenance Training Continuum System (AMTCS) concepts, which are replacing the MTIP. AMTCS is scheduled to begin full implementation for fleet deployment in FY04.

**b. Aviation Maintenance Training Continuum System.** AMTCS will provide career path training to the Sailor and Marine from their initial service entry to the end of their military career. AMTCS concepts will provide an integrated system that will satisfy the training and administrative requirements of both the individual and the organization. The benefits will be manifested in the increased effectiveness of the technicians and the increased efficiencies of the management of the training business process. Where appropriate, capitalizing on technological advances and integrating systems and processes can provide the right amount of training at the right time, thus meeting the Chief of Naval Operations' (CNO) mandated "just-in-time" training approach.

Technology investments enable the development of several state-of-the-art training and administrative tools: Interactive Multimedia Instruction for the technicians in the Fleet in the form of Interactive Courseware with Computer Managed Instruction and Computer Aided Instruction for the schoolhouse.

Included in the AMTCS development effort is the Aviation Maintenance Training Continuum System - Software Module, which provides testing [Test and Evaluation], recording [Electronic Certification Qualification Records], and a Feedback system. The core functionality of these AMTCS tools are based and designed around the actual maintenance-related tasks the technicians perform, and the tasks are stored and maintained in a Master Task List data bank. These tools are procured and fielded with appropriate Commercial-Off-The-Shelf hardware and software, i.e., Fleet Training Devices - Laptops, Personal Computers, Electronic Classrooms, Learning Resource Centers, operating software, and network software and hardware.

Upon receipt of direction from OPNAV (N789H), AMTCS concepts are to be implemented and the new tools integrated into the daily training environment of all participating aviation activities and supporting elements. AMTCS will serve as the standard training system for aviation maintenance training within the Navy, and is planned to supersede the existing MTIP program.

**2. Personnel Qualification Standards.** A draft Personnel Qualification Standards was delivered to Strike Fighter Wing at NAS Lemoore in September 2002. When these are approved they will be included in updates to this document.

**3. Other Onboard or In-Service Training Packages.** NA



## **J. LOGISTICS SUPPORT**

### **1. Manufacturer and Contract Numbers**

<b>CONTRACT NUMBER</b>	<b>MANUFACTURER</b>	<b>ADDRESS</b>
N00019-96-D-0159	Raytheon Technical Systems Company	6125 East 21 <sup>st</sup> Street Indianapolis, IN 46219-2058
N00019-01-C-0105	Recon/Optical Incorporated	550 West Northwest Highway Barrington, IL 60010-3094

**2. Program Documentation.** The following program documentation has been completed:

- SHARP Operational Requirements Document, #608-78-03, 7 March 2003
- Acquisition Logistics Support Plan, 19 December 2000
- Raytheon Integrated Support Plan, 20 March 2001

**3. Technical Data Plan.** Technical publications are to be developed for each assembly contained in SHARP and will provide data for the operation and maintenance of SHARP and associated Support Equipment. The Naval Air Technical Data and Engineering Service Command is the requiring activity for the SHARP program technical publication procurement and distribution. NAVAIR North Island (Depot) has been assigned engineering cognizance of SHARP technical manuals. Under their direction, the Boeing Company will develop and deliver technical publications required for organizational level support of SHARP, while the Raytheon Company will develop and deliver technical publications required for intermediate level support of SHARP. When technical manual information becomes available it will be included in updates to this NTSP. Initial Operating Capability is scheduled for FY04.

**4. Test Sets, Tools, and Test Equipment.** The SHARP Program is making maximum use of existing support equipment in the transport, loading, and maintenance of the SHARP system ashore and afloat. Technical Training Equipment (TTE) requirements are not yet determined.

A tentative list of TTE follows; when TTE requirements information is updated it will be included in updates to this NTSP.

- SHARP Peculiar Support Equipment - Organization and Intermediate Level
  - SHOLS Trolley
  - LP Air Hose Assembly
  - SHOLS Link Adapter
  - Power Filter Assembly
  - Ram Air Inlet Cover
  - Electro-Optical Pod/Pallet Tester (EOPT)
  - EOPT Interface Cable
  - Transport Adapter-Forward
  - Transport Adapter-Aft
- SHARP Peculiar Equipment – Intermediate Level
  - MAS I/R Adapter
  - PAO Chiller
  - Sensor Lifting Beam
  - Shipboard Maintenance Frame Adapter
  - Shore Based Maintenance Stand
  - ECU Stand
  - ECU Lifting Beam
  - Hose Assembly - PAO Hand Pump
  - ECU I/R Adapter
  - Universal Sensor I/R Adapter
  - HAS I/R Adapter
  - Scissors Lift
- Common Support Equipment and F/A-18 Peculiar Support Equipment
  - Manual Bomb Hoist (HLU-288/E)
  - Transporter (MHU-191/M)
  - Transporter (MHU-202/M)
  - SHOLS Rack Adapter - Left
  - SHOLS Rack Adapter - Right
  - PAO Hand Pump

**5. Repair Parts.** The Navy Inventory Control Point began procurement of interim replacement parts in FY02 in support of the Low Rate Initial Production procurements. During the Interim Support period, all SHARP WRAs will be under an organizational level to OEM maintenance concept.

**6. Human Systems Integration.** All new design systems and software address the human-machine interface for operators, maintainers, and support personnel. The design processes conformed to best standard human engineering practices as defined in existing human factors engineering design standards. The Human Systems Integration (HSI) Plan will establish the basis for effective integration of human factors engineering, manpower, personnel, training, health hazards, and safety considerations into the SHARP acquisition as outlined in Department of Defense Instruction 5000.2R and as per SHARP Operational Requirements Document 522-88-99.

This system has no habitability impact. There are no manpower impacts outside of those explained above and covered in Parts II and III of this document.

All future CBT, CAI, and ICW training material will be Sharable Content Object Reference Model (SCORM) conformant and conform with the technical standards to run in the intended environment: classroom automated electronic classroom or Learning Resource Center, Navy e-learning, AMTCS, or desktop (NMCI ashore or IT21 afloat).

The ECP process, in accordance with NAVAIRINST 4130.1C, is utilized to initiate upgrades to operational and training systems and allows for inputs to the affect on the human and MPT. All new engineering change proposals for SHARPS take into consideration the human-machine interface for operators, maintainers, and support personnel.

Environmental and occupational Safety and Health requirements meet federal, state, and local standards, regulations, and directives and are enforced by respective agencies, as applicable. Details can be found in the F/A-18E/F Shared Reconnaissance Pod (SHARP) System Programmatic Environmental, Safety, and Occupational Health Evaluation and Strategy. System safety will be accomplished in accordance with the SHARP Imagery Sensor System Safety Program Plan. Analyses were required to identify and quantify hazards in hardware, software and human interfaces. The program involved system safety in the design process to assure safety in design, manufacture, handling, testing, usage, maintenance and integration. Hazards, including environmental and hazardous materials, were eliminated or controlled to an acceptable level of risk in accordance with the SHARP Imagery Sensor System Safety Program Plan.

## K. SCHEDULES

**1. Installation and Delivery Schedules.** As of the date of this NTSP, the SHARP program has been funded to meet the Navy's minimum warfighting requirement of 16 pods. The total inventory objective is 50 pods (40 operational and 10 pipeline) See Note below. Deliveries began in FY02 with VFA-41 at NAS Lemoore. A confirmed delivery schedule is not currently available. When a confirmed delivery schedule becomes available it will be included in updates to this NTSP.

**Note:** Current planning is to reduce the number of SHARP pods to 21 total pods. As the information on the delivery and number of pods becomes available it will be included in updates to this NTSP.

**2. Ready For Operational Use Schedule.** The following table illustrates the draft transition plan as F-14 squadrons are phased out and transitioned to F/A-18F squadrons. SHARP pods will be ready for operational use when assigned to operational units during Carrier Airwing work-ups prior to deployment.

**READY FOR OPERATIONAL USE SCHEDULE**

ACTIVITY	FY02	FY03	FY04	FY05	FY06	FY07
VFA-41	1					
VFA-102	1					
VFA-122 (West FRS)	1					
VFA-2		1				
VFA-154			1			
VFA-106 (East FRS)			1			
VFA-103				1		
VFA-32				1		
VFA-213					1	
VFA-211					1	
VFA-143						1
VFA-31						1

**3. Time Required to Install at Operational Sites.** Existing TARPS maintenance facilities and spaces are planned to be utilized for SHARP. An initial candidate space was identified within Hangar 4, "D Mod" at AIMD, NAS Lemoore and construction is complete. Modifications are complete on the USS Nimitz (CVN 68) for SHARP support. Consideration is being given to installation at a yet to be determined East Coast NAS. Actual time required for modification and installation is undetermined at this time.

**4. Foreign Military Sales and Other Source Delivery Schedule.** Australia may be considered for FMS. Multi-platform application is being considered. For further information regarding FMS or other platform applications contact the Developing Agency, NAVAIR, PMA265.

**5. Training Devices and Technical Training Equipment Delivery Schedule.** Current planning is to modify one of the prototype pods for ordnance upload and download training at the NAMTRAU. The modified SHARP Pod is currently planned for delivery by October 2003. Additionally, an Intermediate Level Training Pod must be developed in order to supplement the intermediate level maintenance course currently in development. When this information is updated it will be included in updates to this NTSP.

**L. GOVERNMENT-FURNISHED EQUIPMENT AND CONTRACTOR-FURNISHED EQUIPMENT TRAINING REQUIREMENTS. NA**

**M. RELATED NTSPs AND OTHER APPLICABLE DOCUMENTS**

<b>DOCUMENT OR NTSP TITLE</b>	<b>DOCUMENT OR NTSP NUMBER</b>	<b>PDA CODE</b>	<b>STATUS</b>
F-14A/B/D Navy Training System Plan	N88-NTSP-A-50-8511C/A	PMA241	Approved Feb 02
F/A-18 Weapon System Navy Training System Plan	N88-NTSP-A-50-7703I/D	PMA265	Draft Oct 02

## **PART II - BILLET AND PERSONNEL REQUIREMENTS**

The following elements are not affected by the SHARP and, therefore, are not included in Part II of this NTSP:

### **II.A. Billet Requirements**

II.A.2.a. Operational and Fleet Support Activity Deactivation Schedule

II.A.2.b. Billets to be Deleted in Operational and Fleet Support Activities

II.A.2.c. Total Billets to be Deleted in Operational and Fleet Support Activities

## PART II - BILLET AND PERSONNEL REQUIREMENTS

### II.A. BILLET REQUIREMENTS

**SOURCE OF SCHEDULE:** NAVMAC / AIR 3.2.6 (formerly 3.4.1)

**DATE:** Aug 2003

#### II.A.1.a. OPERATIONAL AND FLEET SUPPORT ACTIVITY ACTIVATION SCHEDULE

ACTIVITY, UIC		PFYs	CFY03	FY04	FY05	FY06	FY07
OPERATIONAL ACTIVITIES - USN							
VFA-103	09718	0	0	0	1	0	0
VFA-106 FRS EAST	09679	0	0	1	0	0	0
VFA-143	09281	0	0	0	0	0	1
VFA-211	09086	0	0	0	0	1	0
VFA-213	09934	0	0	0	0	1	0
VFA-31	09560	0	0	0	0	0	1
VFA-32	09053	0	0	0	1	0	0
VFA-102	09717	1	0	0	0	0	0
VFA-122 FRS West	09355	1	0	0	0	0	0
VFA-154	09678	0	0	1	0	0	0
VFA-2	09113	0	1	0	0	0	0
VFA-41	09774	1	0	0	0	0	0
<b>TOTAL:</b>		3	1	2	2	2	2
FLEET SUPPORT ACTIVITIES - USN							
NAS Oceana AIMD	44327	0	0	1	0	0	0
NAS Oceana AIMD SEAOPDET	46963	0	0	0	1	0	0
VX-23	39783	1	0	0	0	0	0
CV-63	03363	1	0	0	0	0	0
NAS Lemoore AIMD	44321	0	1	0	0	0	0
NAS Lemoore AIMD SEAOPDET	46964	1	0	0	0	0	0
VX-31	39787	1	0	0	0	0	0
VX-9	55646	1	0	0	0	0	0
<b>TOTAL:</b>		5	1	1	1	0	0

CV-63 is not supported by SEAOPDET personnel for SHARP Intermediate Level maintenance. Ship's company I-level manning is reflected accordingly.

**II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES**

ACTIVITY, UIC, PHASING INCREMENT	BILLETS		DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
	OFF	ENL			
OPERATIONAL ACTIVITIES - USN					
VFA-103, 09718, FY05 Increment					
ACDU	2	0	CDR	1301	
	1	0	ENS	6470	
	2	0	LCDR	1311	
	2	0	LCDR	1321	
	8	0	LT	1311	
	8	0	LT	1321	
	11	0	LTJG	1311	
	11	0	LTJG	1321	
	0	1	AT3	8841	
	0	1	PH2	8341	
	0	1	PH3	8841	
	0	2	PHAN	8841	
ACTIVITY TOTAL:	45	5			
VFA-106 FRS EAST, 09679, FY04 Increment					
ACDU	3	0	CDR	1302	
	1	0	ENS	6470	
	4	0	LCDR	1302	
	10	0	LCDR	1312	
	6	0	LCDR	1322	
	55	0	LT	1312	
	25	0	LT	1322	
	0	1	AT3	8841	
	0	1	PH2	8341	
	0	1	PH3	8841	
	0	2	PHAN	8841	
ACTIVITY TOTAL:	104	5			
VFA-143, 09281, FY07 Increment					
ACDU	2	0	CDR	1301	
	1	0	ENS	6470	
	2	0	LCDR	1311	
	2	0	LCDR	1321	
	8	0	LT	1311	
	8	0	LT	1321	
	11	0	LTJG	1311	
	11	0	LTJG	1321	
	0	1	AT3	8841	
	0	1	PH2	8341	
	0	1	PH3	8841	
	0	2	PHAN	8841	



II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

ACTIVITY, UIC, PHASING INCREMENT	BILLETS		DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
	OFF	ENL			
<b>ACTIVITY TOTAL:</b>	45	5			
<b>VFA-211, 09086, FY06 Increment</b>					
ACDU	2	0	CDR	1301	
	1	0	ENS	6470	
	2	0	LCDR	1311	
	2	0	LCDR	1321	
	8	0	LT	1311	
	8	0	LT	1321	
	11	0	LTJG	1311	
	11	0	LTJG	1321	
	0	1	AT3	8841	
	0	1	PH2	8341	
	0	1	PH3	8841	
	0	2	PHAN	8841	
<b>ACTIVITY TOTAL:</b>	45	5			
<b>VFA-213, 09934, FY06 Increment</b>					
ACDU	2	0	CDR	1301	
	1	0	ENS	6470	
	2	0	LCDR	1311	
	2	0	LCDR	1321	
	8	0	LT	1311	
	8	0	LT	1321	
	11	0	LTJG	1311	
	11	0	LTJG	1321	
	0	1	AT3	8841	
	0	1	PH2	8341	
	0	1	PH3	8841	
	0	2	PHAN	8841	
<b>ACTIVITY TOTAL:</b>	45	5			
<b>VFA-31, 09560, FY07 Increment</b>					
ACDU	2	0	CDR	1301	
	1	0	ENS	6470	
	2	0	LCDR	1311	
	2	0	LCDR	1321	
	8	0	LT	1311	
	8	0	LT	1321	
	11	0	LTJG	1311	
	11	0	LTJG	1321	
	0	1	AT3	8841	
	0	1	PH2	8341	
	0	1	PH3	8841	
	0	2	PHAN	8841	

II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

ACTIVITY, UIC, PHASING INCREMENT	BILLETS		DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
	OFF	ENL			
<b>ACTIVITY TOTAL:</b>	45	5			
<b>VFA-32, 09053, FY05 Increment</b>					
ACDU	2	0	CDR	1301	
	1	0	ENS	6470	
	2	0	LCDR	1311	
	2	0	LCDR	1321	
	8	0	LT	1311	
	8	0	LT	1321	
	11	0	LTJG	1311	
	11	0	LTJG	1321	
	0	1	AT3	8841	
	0	1	PH2	8341	
	0	1	PH3	8841	
	0	2	PHAN	8841	
<b>ACTIVITY TOTAL:</b>	45	5			
<b>VFA-102, 09717, FY03 Increment</b>					
ACDU	2	0	CDR	1301	
	1	0	ENS	6470	
	2	0	LCDR	1311	
	2	0	LCDR	1321	
	8	0	LT	1311	
	8	0	LT	1321	
	11	0	LTJG	1311	
	11	0	LTJG	1321	
	0	1	AT3	8841	
	0	1	PH2	8341	
	0	1	PH3	8841	
	0	2	PHAN	8841	
<b>ACTIVITY TOTAL:</b>	45	5			
<b>VFA-122 FRS West, 09355, FY03 Increment</b>					
ACDU	0	1	AT3	8841	
<b>VFA-122 FRS West, 09355, FY04 Increment</b>					
ACDU	3	0	CDR	1302	
	1	0	ENS	6470	
	4	0	LCDR	1302	
	10	0	LCDR	1312	
	6	0	LCDR	1322	
	55	0	LT	1312	
	25	0	LT	1322	
	0	1	PH2	8341	
	0	1	PH3	8841	
	0	2	PHAN	8841	

II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

ACTIVITY, UIC, PHASING INCREMENT	BILLETS		DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
	OFF	ENL			
<b>ACTIVITY TOTAL:</b>	104	5			
<b>VFA-154, 09678, FY04 Increment</b>					
ACDU	2	0	CDR	1301	
	1	0	ENS	6470	
	2	0	LCDR	1311	
	2	0	LCDR	1321	
	8	0	LT	1311	
	8	0	LT	1321	
	11	0	LTJG	1311	
	11	0	LTJG	1321	
	0	1	AT3	8841	
	0	1	PH2	8341	
	0	1	PH3	8841	
	0	2	PHAN	8841	
<b>ACTIVITY TOTAL:</b>	45	5			
<b>VFA-2, 09113, FY03 Increment</b>					
ACDU	2	0	CDR	1301	
	1	0	ENS	6470	
	2	0	LCDR	1311	
	2	0	LCDR	1321	
	8	0	LT	1311	
	8	0	LT	1321	
	11	0	LTJG	1311	
	11	0	LTJG	1321	
	0	1	AT3	8841	
	0	1	PH2	8341	
	0	1	PH3	8841	
	0	2	PHAN	8841	
<b>ACTIVITY TOTAL:</b>	45	5			
<b>VFA-41, 09774, FY03 Increment</b>					
ACDU	2	0	CDR	1301	
	1	0	ENS	6470	
	2	0	LCDR	1311	
	2	0	LCDR	1321	
	8	0	LT	1311	
	8	0	LT	1321	
	11	0	LTJG	1311	
	11	0	LTJG	1321	
	0	1	AT3	8841	
	0	1	PH2	8341	
	0	1	PH3	8841	
	0	2	PHAN	8841	

II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

ACTIVITY, UIC, PHASING INCREMENT	BILLETS OFF ENL		DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
<b>ACTIVITY TOTAL:</b>	45	5			
FLEET SUPPORT ACTIVITIES - USN					
<b>NAS Oceana AIMD, 44327, FY04 Increment</b>					
ACDU	0	1	AT1	66XX	
	0	2	AT2	66XX	
<b>ACTIVITY TOTAL:</b>	0	3			
<b>NAS Oceana AIMD SEAOPDET, 46963, FY05 Increment</b>					
ACDU	0	4	AT2	66XX	
	0	2	ATAN	0000	
<b>NAS Oceana AIMD SEAOPDET, 46963, FY06 Increment</b>					
ACDU	0	4	AT2	66XX	
	0	2	ATAN	0000	
<b>NAS Oceana AIMD SEAOPDET, 46963, FY07 Increment</b>					
ACDU	0	2	AT2	66XX	
	0	1	ATAN	0000	
<b>ACTIVITY TOTAL:</b>	0	15			
<b>VX-23, 39783, FY03 Increment</b>					
ACDU	0	1	AT3	8841	
<b>VX-23, 39783, FY04 Increment</b>					
ACDU	1	0	ENS	6470	
	4	0	LCDR	1312	
	2	0	LCDR	1322	
	30	0	LT	1312	
	5	0	LT	1322	
	0	1	PH2	8341	
	0	1	PH3	8841	
	0	2	PHAN	8841	
<b>ACTIVITY TOTAL:</b>	42	5			
<b>CV-63, 03363, FY03 Increment</b>					
ACDU	0	1	AT1	66XX	
	0	4	AT2	66XX	
	0	1	ATAN	0000	
<b>ACTIVITY TOTAL:</b>	0	6			
<b>NAS Lemoore AIMD, 44321, FY03 Increment</b>					

# II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

ACTIVITY, UIC, PHASING INCREMENT	BILLETS		DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
	OFF	ENL			
ACDU	0	1	AT1	66XX	
	0	2	AT2	66XX	
<b>ACTIVITY TOTAL:</b>	0	3			
<b>NAS Lemoore AIMD SEAOPDET, 46964</b>					
ACDU	0	2	AT2	66XX	
	0	1	ATAN	0000	
<b>NAS Lemoore AIMD SEAOPDET, 46964, FY03 Increment</b>					
ACDU	0	2	AT2	66XX	
	0	1	ATAN	0000	
<b>NAS Lemoore AIMD SEAOPDET, 46964, FY04 Increment</b>					
ACDU	0	2	AT2	66XX	
	0	1	ATAN	0000	
<b>NAS Lemoore AIMD SEAOPDET, 46964, FY07 Increment</b>					
ACDU	0	2	AT2	66XX	
	0	1	ATAN	0000	
<b>ACTIVITY TOTAL:</b>	0	12			
<b>VX-31, 39787, FY03 Increment</b>					
ACDU	0	1	AT3	8841	
<b>VX-31, 39787, FY04 Increment</b>					
ACDU	1	0	ENS	6470	
	4	0	LCDR	1312	
	2	0	LCDR	1322	
	30	0	LT	1312	
	5	0	LT	1322	
	0	1	PH2	8341	
	0	1	PH3	8841	
	0	2	PHAN	8841	
<b>ACTIVITY TOTAL:</b>	42	5			
<b>VX-9, 55646, FY03 Increment</b>					
ACDU	0	1	AT3	8841	
<b>VX-9, 55646, FY04 Increment</b>					
ACDU	1	0	ENS	6470	
	4	0	LCDR	1312	
	2	0	LCDR	1322	
	30	0	LT	1312	
	5	0	LT	1322	
	0	1	PH2	8341	

**II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES**

ACTIVITY, UIC, PHASING INCREMENT	BILLETS		DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
	OFF	ENL			
ACDU	0	1	PH3	8841	
	0	2	PHAN	8841	
<b>ACTIVITY TOTAL:</b>	42	5			

## II.A.1.c. TOTAL BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

DESIG/ RATING	PNEC/SNEC PMOS/SMOS	PFYs		CFY03		FY04		FY05		FY06		FY07	
		OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL
USN OPERATIONAL ACTIVITIES - ACDU													
CDR	1301	0		6		2		4		4		4	
CDR	1302	0		0		6		0		0		0	
ENS	6470	0		3		3		2		2		2	
LCDR	1302	0		0		8		0		0		0	
LCDR	1311	0		6		2		4		4		4	
LCDR	1312	0		0		20		0		0		0	
LCDR	1321	0		6		2		4		4		4	
LCDR	1322	0		0		12		0		0		0	
LT	1311	0		24		8		16		16		16	
LT	1312	0		0		110		0		0		0	
LT	1321	0		24		8		16		16		16	
LT	1322	0		0		50		0		0		0	
LTJG	1311	0		33		11		22		22		22	
LTJG	1321	0		33		11		22		22		22	
AT3	8841		0		4		2		2		2		2
PH2	8341		0		3		3		2		2		2
PH3	8841		0		3		3		2		2		2
PHAN	8841		0		6		6		4		4		4
USN FLEET SUPPORT ACTIVITIES - ACDU													
ENS	6470	0		0		3		0		0		0	
LCDR	1312	0		0		12		0		0		0	
LCDR	1322	0		0		6		0		0		0	
LT	1312	0		0		90		0		0		0	
LT	1322	0		0		15		0		0		0	
AT1	66XX		0		2		1		0		0		0
AT2	66XX		2		8		4		4		4		4
AT3	8841		0		3		0		0		0		0
ATAN	0000		1		2		1		2		2		2
PH2	8341		0		0		3		0		0		0
PH3	8841		0		0		3		0		0		0
PHAN	8841		0		0		6		0		0		0

### SUMMARY TOTALS:

USN OPERATIONAL ACTIVITIES - ACDU													
		0	0	135	16	253	14	90	10	90	10	90	10
USN FLEET SUPPORT ACTIVITIES - ACDU													
		0	3	0	15	126	18	0	6	0	6	0	6

**II.A.1.c. TOTAL BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES**

DESIG/ RATING	PNEC/SNEC PMOS/SMOS	PFYs		CFY03		FY04		FY05		FY06		FY07	
		OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL
<b>GRAND TOTALS:</b>													
USN - ACDU		0	3	135	31	379	32	90	16	90	16	90	16



### II.A.3. TRAINING ACTIVITIES INSTRUCTOR AND SUPPORT BILLET REQUIREMENTS

DESIG RATING	PNEC/SNEC PMOS/SMOS	PFYs		CFY03		FY04		FY05		FY06		FY07	
		OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL

TRAINING ACTIVITY, LOCATION, UIC: MTU 1038 NAMTRAU, Lemoore, 66060

#### INSTRUCTOR BILLETS

USN														
ATC	8341	9502	0	1	0	1	0	1	0	1	0	1	0	1
AT1		9502	0	0	0	2	0	2	0	2	0	2	0	2
AT1	8341	9502	0	2	0	2	0	2	0	2	0	2	0	2
AT2	8341		0	1	0	1	0	1	0	1	0	1	0	1
PH1	8341	9502	0	0	0	2	0	2	0	2	0	2	0	2
<b>TOTAL:</b>			0	4	0	8	0	8	0	8	0	8	0	8

TRAINING ACTIVITY, LOCATION, UIC: MTU 1039 NAMTRAU, Oceana, 66045

#### INSTRUCTOR BILLETS

USN														
ATC	8341	9502	0	3	0	3	0	3	0	3	0	3	0	3
AT1		9502	0	0	0	2	0	2	0	2	0	2	0	2
AT1	8341	9502	0	10	0	10	0	10	0	10	0	10	0	10
PH1	8341	9502	0	0	0	2	0	2	0	2	0	2	0	2

#### SUPPORT BILLETS

USN														
AT1	8341		0	1	0	1	0	1	0	1	0	1	0	1
AT2	8341		0	1	0	1	0	1	0	1	0	1	0	1
<b>TOTAL:</b>			0	15	0	19	0	19	0	19	0	19	0	19

#### II.A.4. CHARGEABLE STUDENT BILLET REQUIREMENTS

ACTIVITY, LOCATION, UIC	USN/ USMC	PFYs		CFY03		FY04		FY05		FY06		FY07	
		OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL
MTU 1039 NAMTRAU, Oceana, 66045													
	USN	0.0	0.2	0.0	0.4	0.0	0.5	0.0	0.7	0.0	0.8	0.0	0.9
MTU 1038 NAMTRAU, Lemoore, 66060													
	USN	13.0	0.5	19.8	1.7	22.2	1.0	30.3	1.2	31.2	1.5	27.7	1.2
VFA-122 FRS West, NAS Lemoore, 09355													
	USN	33.2	0.0	39.5	0.0	48.3	0.0	63.9	0.0	67.6	0.0	58.3	0.0
<b>SUMMARY TOTALS:</b>													
	USN	46.2	0.7	59.3	2.1	70.5	1.5	94.2	1.9	98.8	2.3	86.0	2.1
<b>GRAND TOTALS:</b>													
		46.2	0.7	59.3	2.1	70.5	1.5	94.2	1.9	98.8	2.3	86.0	2.1

## II.A.5. ANNUAL INCREMENTAL AND CUMULATIVE BILLETS

DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS	BILLET BASE	CFY03 +/-	CUM	FY04 +/-	CUM	FY05 +/-	CUM	FY06 +/-	CUM	FY07 +/-	CUM
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### a. OFFICER - USN

#### Operational Billets ACDU and TAR

CDR	1301		0	6	6	2	8	4	12	4	16	4	20
CDR	1302		0	0	0	6	6	0	6	0	6	0	6
ENS	6470		0	3	3	3	6	2	8	2	10	2	12
LCDR	1302		0	0	0	8	8	0	8	0	8	0	8
LCDR	1311		0	6	6	2	8	4	12	4	16	4	20
LCDR	1312		0	0	0	20	20	0	20	0	20	0	20
LCDR	1321		0	6	6	2	8	4	12	4	16	4	20
LCDR	1322		0	0	0	12	12	0	12	0	12	0	12
LT	1311		0	24	24	8	32	16	48	16	64	16	80
LT	1312		0	0	0	110	110	0	110	0	110	0	110
LT	1321		0	24	24	8	32	16	48	16	64	16	80
LT	1322		0	0	0	50	50	0	50	0	50	0	50
LTJG	1311		0	33	33	11	44	22	66	22	88	22	110
LTJG	1321		0	33	33	11	44	22	66	22	88	22	110

#### Fleet Support Billets ACDU and TAR

ENS	6470		0	0	0	3	3	0	3	0	3	0	3
LCDR	1312		0	0	0	12	12	0	12	0	12	0	12
LCDR	1322		0	0	0	6	6	0	6	0	6	0	6
LT	1312		0	0	0	90	90	0	90	0	90	0	90
LT	1322		0	0	0	15	15	0	15	0	15	0	15

#### Chargeable Student Billets ACDU and TAR

47	13	60	11	71	24	95	4	99	-13	86
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### TOTAL USN OFFICER BILLETS:

Operational	0	135	135	253	388	90	478	90	568	90	658
Fleet Support	0	0	0	126	126	0	126	0	126	0	126
Chargeable Student	47	13	60	11	71	24	95	4	99	-13	86

### b. ENLISTED - USN

#### Operational Billets ACDU and TAR

AT3	8841		0	4	4	2	6	2	8	2	10	2	12
PH2	8341		0	3	3	3	6	2	8	2	10	2	12
PH3	8841		0	3	3	3	6	2	8	2	10	2	12
PHAN	8841		0	6	6	6	12	4	16	4	20	4	24

#### Fleet Support Billets ACDU and TAR

## II.A.5. ANNUAL INCREMENTAL AND CUMULATIVE BILLETS

DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS	BILLET BASE	CFY03 +/-	CUM	FY04 +/-	CUM	FY05 +/-	CUM	FY06 +/-	CUM	FY07 +/-	CUM
AT1	66XX		0	2	2	1	3	0	3	0	3	0	3
AT2	66XX		2	8	10	4	14	4	18	4	22	4	26
AT3	8841		0	3	3	0	3	0	3	0	3	0	3
ATAN	0000		1	2	3	1	4	2	6	2	8	2	10
PH2	8341		0	0	0	3	3	0	3	0	3	0	3
PH3	8841		0	0	0	3	3	0	3	0	3	0	3
PHAN	8841		0	0	0	6	6	0	6	0	6	0	6
Staff Billets ACDU and TAR													
ATC	8341	9502	4	0	4	0	4	0	4	0	4	0	4
AT1		9502	0	4	4	0	4	0	4	0	4	0	4
AT1	8341		1	0	1	0	1	0	1	0	1	0	1
AT1	8341	9502	12	0	12	0	12	0	12	0	12	0	12
AT2	8341		2	0	2	0	2	0	2	0	2	0	2
PH1	8341	9502	0	4	4	0	4	0	4	0	4	0	4
Chargeable Student Billets ACDU and TAR													
			1	2	3	-1	2	0	2	1	3	0	3

### TOTAL USN ENLISTED BILLETS:

Operational	0	16	16	14	30	10	40	10	50	10	60
Fleet Support	3	15	18	18	36	6	42	6	48	6	54
Staff	19	8	27	0	27	0	27	0	27	0	27
Chargeable Student	1	2	3	-1	2	0	2	1	3	0	3

### c. OFFICER - USMC

Not Applicable

### d. ENLISTED - USMC

Not Applicable

## II.B. ANNUAL TRAINING INPUT REQUIREMENTS

**CIN, COURSE TITLE:** E-2A-061X, F/A-18E/F Fleet Replacement Pilot Category 1 Pipeline

**COURSE LENGTH:** 37.0 Weeks

**NAVY TOUR LENGTH:** 36 Months

**ATTRITION FACTOR:** Navy: 0%

**BACKOUT FACTOR:** 0.74

TRAINING ACTIVITY	SOURCE	ACDU/TAR SELRES	CFY03		FY04		FY05		FY06		FY07	
			OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL
VFA-122 FRS West, NAS Lemoore												
	USN	ACDU	18		24		31		30		26	
		TOTAL:	18		24		31		30		26	

**CIN, COURSE TITLE:** E-2A-062X, F/A-18E/F Fleet Replacement Pilot Category 2 Pipeline

**COURSE LENGTH:** 31.0 Weeks

**NAVY TOUR LENGTH:** 36 Months

**ATTRITION FACTOR:** Navy: 0%

**BACKOUT FACTOR:** 0.62

TRAINING ACTIVITY	SOURCE	ACDU/TAR SELRES	CFY03		FY04		FY05		FY06		FY07	
			OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL
VFA-122 FRS West, NAS Lemoore												
	USN	ACDU	18		21		28		29		25	
		TOTAL:	18		21		28		29		25	

**CIN, COURSE TITLE:** E-2A-063X, F/A-18E/F Fleet Replacement Pilot Category 3 Pipeline

**COURSE LENGTH:** 24.2 Weeks

**NAVY TOUR LENGTH:** 36 Months

**ATTRITION FACTOR:** Navy: 0%

**BACKOUT FACTOR:** 0.48

TRAINING ACTIVITY	SOURCE	ACDU/TAR SELRES	CFY03		FY04		FY05		FY06		FY07	
			OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL
VFA-122 FRS West, NAS Lemoore												
	USN	ACDU	10		11		15		16		14	
		TOTAL:	10		11		15		16		14	

**CIN, COURSE TITLE:** E-2A-064X, F/A-18E/F Fleet Replacement Pilot Category 4 Pipeline

**COURSE LENGTH:** 5.2 Weeks

**NAVY TOUR LENGTH:** 36 Months

**ATTRITION FACTOR:** Navy: 0%

**BACKOUT FACTOR:** 0.10

TRAINING ACTIVITY	SOURCE	ACDU/TAR SELRES	CFY03		FY04		FY05		FY06		FY07	
			OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL
VFA-122 FRS West, NAS Lemoore												
	USN	ACDU	9		7		11		13		12	
		TOTAL:	9		7		11		13		12	

**CIN, COURSE TITLE:** E-2D-181X, F/A-18F Combat Capable Weapons Sensor Officer Category 1 Pipeline

**COURSE LENGTH:** 33.0 Weeks

**NAVY TOUR LENGTH:** 36 Months

**ATTRITION FACTOR:** Navy: 0%

**BACKOUT FACTOR:** 0.66

TRAINING ACTIVITY	SOURCE	ACDU/TAR SELRES	CFY03		FY04		FY05		FY06		FY07	
			OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL
VFA-122 FRS West, NAS Lemoore												
	USN	ACDU	17		21		28		33		28	
		TOTAL:	17		21		28		33		28	

## II.B. ANNUAL TRAINING INPUT REQUIREMENTS

**CIN, COURSE TITLE:** E-2D-182X, F/A-18F Combat Capable Weapons Sensor Officer Category 2 Pipeline

**COURSE LENGTH:** 31.0 Weeks

**NAVY TOUR LENGTH:** 36 Months

**ATTRITION FACTOR:** Navy: 0%

**BACKOUT FACTOR:** 0.62

TRAINING ACTIVITY	SOURCE	ACDU/TAR SELRES	CFY03		FY04		FY05		FY06		FY07	
			OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL
MTU 1038 NAMTRAU, Lemoore												
	USN	ACDU	16		20		26		26		23	
		TOTAL:	16		20		26		26		23	

**CIN, COURSE TITLE:** E-2D-183X, F/A-18F Combat Capable Weapons Sensor Officer Category 3 Pipeline

**COURSE LENGTH:** 24.2 Weeks

**NAVY TOUR LENGTH:** 36 Months

**ATTRITION FACTOR:** Navy: 0%

**BACKOUT FACTOR:** 0.48

TRAINING ACTIVITY		ACDU/TAR SELRES	CFY03		FY04		FY05		FY06		FY07	
			OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL
MTU 1038 NAMTRAU, Lemoore												
USN		ACDU	18		19		27		28		25	
		TOTAL:	18		19		27		28		25	

**CIN, COURSE TITLE:** E-2D-184X, F/A-18F Combat Capable Weapons Sensor Officer Category 4 Pipeline

**COURSE LENGTH:** 5.2 Weeks

**NAVY TOUR LENGTH:** 36 Months

**ATTRITION FACTOR:** Navy: 0%

**BACKOUT FACTOR:** 0.10

TRAINING ACTIVITY	SOURCE	ACDU/TAR SELRES	CFY03		FY04		FY05		FY06		FY07	
			OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL
MTU 1038 NAMTRAU, Lemoore												
	USN	ACDU	21		16		25		29		26	
		TOTAL:	21		16		25		29		26	

**CIN, COURSE TITLE:** E-102-0623, F/A-18E/F Avionics Systems (Initial) Organizational Maintenance Pipeline

**COURSE LENGTH:** 13.8 Weeks

**NAVY TOUR LENGTH:** 36 Months

**ATTRITION FACTOR:** Navy: 10%

**BACKOUT FACTOR:** 0.28

TRAINING ACTIVITY		ACDU/TAR SELRES	CFY03		FY04		FY05		FY06		FY07	
SOURCE			OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL
MTU 1038 NAMTRAU, Lemoore												
USN		ACDU		7		4		5		6		5
		TOTAL:		7		4		5		6		5

**CIN, COURSE TITLE:** C-XXX-XXXX, SHARP Intermediate Maintenance Technician Pipeline

**COURSE LENGTH:** 4.4 Weeks

**NAVY TOUR LENGTH:** 36 Months

**ATTRITION FACTOR:** Navy: 10%

**BACKOUT FACTOR:** 0.09

TRAINING ACTIVITY	SOURCE	ACDU/TAR SELRES	CFY03		FY04		FY05		FY06		FY07	
			OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL
MTU 1039 NAMTRAU, Oceana												
	USN	ACDU		5		7		9		10		12
		TOTAL:		5		7		9		10		12

**PART III - TRAINING REQUIREMENTS**

The following elements are not affected by the SHARP Program and, therefore, are not included in Part III of this NTSP:

III.A.2. Follow-on Training

III.A.2.c. Unique Courses

III.A.3. Existing Training Phased Out

**Note 1:** The training shown in this document is only the training required to support SHARP. For information regarding other F/A-18 training, refer to the F/A-18 Weapon System Navy Training System Plan N88-NTSP-A-50-7701/D dated October 2002

**Note 2:** The training for the F/A-18E/F Avionics courses shown below in element III.A.2.a includes the 16-hour course length increase caused by SHARP

### PART III - TRAINING REQUIREMENTS

#### III.A. TRAINING COURSE REQUIREMENTS

##### III.A.1. INITIAL TRAINING REQUIREMENTS

**COURSE TITLE:** F/A-18F SHARP Aircrew Familiarization  
**COURSE DEVELOPER:** Contractor  
**COURSE INSTRUCTOR:** Contractor Facilitator  
**COURSE LENGTH:** 5 Days  
**ACTIVITY DESTINATIONS:** VFA-122 FRS

LOCATION, UIC	BEGIN DATE	STUDENTS		
		OFF	ENL	CIV
NAS Lemoore, 09355	Jan 03	42		
		0.6		Input
		0		AOB
				Chargeable

**COURSE TITLE:** F/A-18 SHARP Organizational Maintenance  
**COURSE DEVELOPER:** Contractor  
**COURSE INSTRUCTOR:** Contractor  
**COURSE LENGTH:** 5 Days  
**ACTIVITY DESTINATIONS:** MTU 1038 NAMTRAU Lemoore, Fleet Squadrons

LOCATION, UIC	BEGIN DATE	STUDENTS		
		OFF	ENL	CIV
MTU 1038 NAMTRAU Lemoore, 66060	Jan 03		8	
			0.1	Input
				AOB
				Chargeable

**COURSE TITLE:** SHARP Intermediate Maintenance  
**COURSE DEVELOPER:** Contractor  
**COURSE INSTRUCTOR:** Contractor Facilitator  
**COURSE LENGTH:** 5 Days  
**ACTIVITY DESTINATIONS:** MTU 1038 NAMTRAU Lemoore, AIMD Lemoore, SEAOPDET

LOCATION, UIC	BEGIN DATE	STUDENTS		
		OFF	ENL	CIV
MTU 1038 NAMTRAU Lemoore, 09355	Jan 03		6	
			0.1	Input
				AOB
Chargeable				



### III.A.2. FOLLOW-ON TRAINING

#### III.A.2.a. EXISTING COURSES

**CIN, COURSE TITLE:** E-2A-061X, F/A-18E/F Fleet Replacement Pilot Category 1 Pipeline  
**TRAINING ACTIVITY:** VFA-122 FRS West  
**LOCATION, UIC:** NAS Lemoore, 09355

**SOURCE:** USN **STUDENT CATEGORY:** ACDU - TAR

CFY03		FY04		FY05		FY06		FY07		
OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	
18		24		31		30		26		ATIR
18		24		31		30		26		Output
12.7		16.9		21.8		21.1		18.3		AOB
12.7		16.9		21.8		21.1		18.3		Chargeable

**CIN, COURSE TITLE:** E-2A-062X, F/A-18E/F Fleet Replacement Pilot Category 2 Pipeline  
**TRAINING ACTIVITY:** VFA-122 FRS West  
**LOCATION, UIC:** NAS Lemoore, 09355

**SOURCE:** USN **STUDENT CATEGORY:** ACDU - TAR

CFY03		FY04		FY05		FY06		FY07		
OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	
18		21		28		29		25		ATIR
18		21		28		29		25		Output
10.6		12.4		16.5		17.1		14.7		AOB
10.6		12.4		16.5		17.1		14.7		Chargeable

**CIN, COURSE TITLE:** E-2A-063X, F/A-18E/F Fleet Replacement Pilot Category 3 Pipeline  
**TRAINING ACTIVITY:** VFA-122 FRS West  
**LOCATION, UIC:** NAS Lemoore, 09355

**SOURCE:** USN **STUDENT CATEGORY:** ACDU - TAR

CFY03		FY04		FY05		FY06		FY07		
OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	
10		11		15		16		14		ATIR
10		11		15		16		14		Output
4.6		5.1		6.9		7.4		6.5		AOB
4.6		5.1		6.9		7.4		6.5		Chargeable

### III.A.2.a. EXISTING COURSES

**CIN, COURSE TITLE:** E-2A-064X, F/A-18E/F Fleet Replacement Pilot Category 4 Pipeline  
**TRAINING ACTIVITY:** VFA-122 FRS West  
**LOCATION, UIC:** NAS Lemoore, 09355

**SOURCE:** USN **STUDENT CATEGORY:** ACDU - TAR

CFY03		FY04		FY05		FY06		FY07		
OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	
9		7		11		13		12		ATIR
9		7		11		13		12		Output
0.9		0.7		1.1		1.3		1.2		AOB
0.9		0.7		1.1		1.3		1.2		Chargeable

**CIN, COURSE TITLE:** E-2D-181X, F/A-18F Combat Capable Weapons Sensor Officer Category 1 Pipeline  
**TRAINING ACTIVITY:** VFA-122 FRS West  
**LOCATION, UIC:** NAS Lemoore, 09355

**SOURCE:** USN **STUDENT CATEGORY:** ACDU - TAR

CFY03		FY04		FY05		FY06		FY07		
OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	
17		21		28		33		28		ATIR
17		21		28		33		28		Output
10.7		13.2		17.6		20.7		17.6		AOB
10.7		13.2		17.6		20.7		17.6		Chargeable

**CIN, COURSE TITLE:** E-2D-182X, F/A-18F Combat Capable Weapons Sensor Officer Category 2 Pipeline  
**TRAINING ACTIVITY:** MTU 1038 NAMTRAU  
**LOCATION, UIC:** Lemoore, 66060

**SOURCE:** USN **STUDENT CATEGORY:** ACDU - TAR

CFY03		FY04		FY05		FY06		FY07		
OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	
16		20		26		26		23		ATIR
16		20		26		26		23		Output
9.4		11.8		15.3		15.3		13.5		AOB
9.4		11.8		15.3		15.3		13.5		Chargeable

### III.A.2.a. EXISTING COURSES

**CIN, COURSE TITLE:** E-2D-183X, F/A-18F Combat Capable Weapons Sensor Officer Category 3 Pipeline  
**TRAINING ACTIVITY:** MTU 1038 NAMTRAU  
**LOCATION, UIC:** Lemoore, 66060

**SOURCE:** USN **STUDENT CATEGORY:** ACDU - TAR

CFY03		FY04		FY05		FY06		FY07		
OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	
18		19		27		28		25		ATIR
18		19		27		28		25		Output
8.3		8.8		12.5		13.0		11.6		AOB
8.3		8.8		12.5		13.0		11.6		Chargeable

**CIN, COURSE TITLE:** E-2D-184X, F/A-18F Combat Capable Weapons Sensor Officer Category 4 Pipeline  
**TRAINING ACTIVITY:** MTU 1038 NAMTRAU  
**LOCATION, UIC:** Lemoore, 66060

**SOURCE:** USN **STUDENT CATEGORY:** ACDU - TAR

CFY03		FY04		FY05		FY06		FY07		
OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	
21		16		25		29		26		ATIR
21		16		25		29		26		Output
2.1		1.6		2.5		2.9		2.6		AOB
2.1		1.6		2.5		2.9		2.6		Chargeable

**CIN, COURSE TITLE:** E-102-0623, F/A-18E/F Avionics Systems (Initial) Organizational Maintenance Pipeline  
**TRAINING ACTIVITY:** MTU 1038 NAMTRAU  
**LOCATION, UIC:** Lemoore, 66060

**SOURCE:** USN **STUDENT CATEGORY:** ACDU - TAR

CFY03		FY04		FY05		FY06		FY07		
OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	
	7		4		5		6		5	ATIR
	6		4		5		5		5	Output
	1.7		1.0		1.2		1.5		1.2	AOB
	1.7		1.0		1.2		1.5		1.2	Chargeable

### III.A.2.b. PLANNED COURSES

**CIN, COURSE TITLE:** C-XXX-XXXX, SHARP Intermediate Maintenance Technician Pipeline  
**TRAINING ACTIVITY:** MTU 1039 NAMTRAU  
**LOCATION, UIC:** Oceana, 66045

**SOURCE:** USN **STUDENT CATEGORY:** ACDU - TAR

CFY03		FY04		FY05		FY06		FY07		
OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	
	5		7		9		10		12	ATIR
	5		6		8		9		11	Output
	0.4		0.5		0.7		0.8		0.9	AOB
	0.4		0.5		0.7		0.8		0.9	Chargeable

**PART IV - TRAINING LOGISTICS SUPPORT REQUIREMENTS**

The following elements are not affected by the SHARP Program and, therefore, are not included in Part IV of this NTSP:

**IV.C. Facility Requirements**

IV.C.1. Facility Requirements Summary (Space/Support) by Activity

IV.C.2. Facility Requirements Detailed by Activity and Course

IV.C.3. Facility Project Summary by Program

**Note 1:** The Technical Training Equipment (TTE) listed in element IV.A.1 is a tentative list of the TTE that will be required to support SHARP Training at the organizational level. When this list is updated and part numbers are identified, it will be included in updates to this NTSP.

**Note 2:** The SHARP Pod Upload and Download Training device listed in element IV.A.2 will be a modified “dummy” Pod. A functional pod will be available to augment training at the intermediate level. A description of this device is not currently available. When this information becomes available it will be included in updates to this NTSP.

**Note 3:** Information regarding the Curricula Materials and Training Aids required to support SHARP training is not currently available. When this information becomes available it will be included in updates to this NTSP.

**Note 4:** Information regarding the Technical Manuals required to support SHARP training is not currently available. When this information becomes available it will be included in updates to this NTSP.

## PART IV - TRAINING LOGISTICS SUPPORT REQUIREMENTS

### IV.A. TRAINING HARDWARE

#### IV.A.1. TTE / GPTE / SPTE / ST / GPETE / SPETE

**CIN, COURSE TITLE:** C-102-9977, F/A-18E/F Avionics Systems (Initial) Organizational Maintenance (Track E-102-0623)

**TRAINING ACTIVITY:** MTU 1038 NAMTRAU

**LOCATION, UIC:** Lemoore, 66060

ITEM NO.	EQUIPMENT / TYPE OR RANGE OF REPAIR	QTY REQD	DATE REQD	GFE CFE	STATUS
<b>TTE</b>					
0001	SHOLS Trolley	1	Oct 04	GFE	Pending
0002	LP Air Hose Assembly	1	Oct 04	GFE	Pending
0003	SHOLS Link adapter	1	Oct 04	GFE	Pending
0004	Power Filter Adapter	1	Oct 04	GFE	Pending
0005	Ram Air inlet cover	1	Oct 04	GFE	Pending
0008	Transport Adapter-forward	1	Oct 04	GFE	Pending
0009	Transport adapter-aft	1	Oct 04	GFE	Pending
0010	MAS I/R Adapter	1	Oct 04	GFE	Pending
0011	PAO Chiller	1	Oct 04	GFE	Pending
0012	Sensor Lifting Beam	1	Oct 04	GFE	Pending
0013	Shipboard Maintenance Frame Adapter	1	Oct 04	GFE	Pending
0014	Shore Based Maintenance Stand	1	Oct 04	GFE	Pending
0015	ECU Stand	1	Oct 04	GFE	Pending
0016	ECU Lifting Beam	1	Oct 04	GFE	Pending
0017	Hose Assembly-PAO Hand Pump	1	Oct 04	GFE	Pending
0018	ECU I/R Adapter	1	Oct 04	GFE	Pending
0019	Universal sensor I/R Adapter	1	Oct 04	GFE	Pending
0020	HAS I/R Adapter	1	Oct 04	GFE	Pending
0021	Scissors Lift	1	Oct 04	GFE	Pending

#### IV.A.1. TTE / GPTE / SPTE / ST / GPETE / SPETE

0022	Manual bomb hoist (HLU-288/E)	1	Oct 04	GFE	Pending
0023	Transporter (MHU-191/M)	1	Oct 04	GFE	Pending
0024	Transporter (MHU-202/M)	1	Oct 04	GFE	Pending
0025	SHOLS Rack Adapter-Left	1	Oct 04	GFE	Pending
0026	SHOLS Rack Adapter-Right	1	Oct 04	GFE	Pending
0027	PAO Hand Pump	1	Oct 04	GFE	Pending

#### SPTE

0028	Electro-Optical POD/Pallet Tester (EOPT)	1	Oct 04	GFE	Pending
0029	EOPT Interface Cable	1	Oct 04	GFE	Pending

**CIN, COURSE TITLE:** C-102-9978, F/A-18E/F Avionics Systems (Career) Organizational Maintenance (Track E-102-0624)

**TRAINING ACTIVITY:** MTU 1038 NAMTRAU

**LOCATION, UIC:** Lemoore, 66060

ITEM NO.	EQUIPMENT / TYPE OR RANGE OF REPAIR	QTY REQD	DATE REQD	GFE CFE	STATUS
<b>TTE</b>					
0001	SHOLS Trolley	1	Oct 04	GFE	Pending
0002	LP Air Hose Assembly	1	Oct 04	GFE	Pending
0003	SHOLS Link adapter	1	Oct 04	GFE	Pending
0004	Power Filter Adapter	1	Oct 04	GFE	Pending
0005	Ram Air inlet cover	1	Oct 04	GFE	Pending
0008	Transport Adapter-forward	1	Oct 04	GFE	Pending
0009	Transport adapter-aft	1	Oct 04	GFE	Pending
0010	MAS I/R Adapter	1	Oct 04	GFE	Pending
0011	PAO Chiller	1	Oct 04	GFE	Pending
0012	Sensor Lifting Beam	1	Oct 04	GFE	Pending
0013	Shipboard Maintenance Frame Adapter	1	Oct 04	GFE	Pending
0014	Shore Based Maintenance Stand	1	Oct 04	GFE	Pending

**IV.A.1. TTE / GPTE / SPTE / ST / GPETE / SPETE**

0015	ECU Stand	1	Oct 04	GFE	Pending
0016	ECU Lifting Beam	1	Oct 04	GFE	Pending
0017	Hose Assembly-PAO Hand Pump	1	Oct 04	GFE	Pending
0018	ECU I/R Adapter	1	Oct 04	GFE	Pending
0019	Universal sensor I/R Adapter	1	Oct 04	GFE	Pending
0020	HAS I/R Adapter	1	Oct 04	GFE	Pending
0021	Scissors Lift	1	Oct 04	GFE	Pending
0022	Manual bomb hoist (HLU-288/E)	1	Oct 04	GFE	Pending
0023	Transporter (MHU-191/M)	1	Oct 04	GFE	Pending
0024	Transporter (MHU-202/M)	1	Oct 04	GFE	Pending
0025	SHOLS Rack Adapter-Left	1	Oct 04	GFE	Pending
0026	SHOLS Rack Adapter-Right	1	Oct 04	GFE	Pending
0027	PAO Hand Pump	1	Oct 04	GFE	Pending
<b>SPTE</b>					
0028	Electro-Optical POD/Pallet Tester (EOPT)	1	Oct 04	GFE	Pending
0029	EOPT Interface Cable	1	Oct 04	GFE	Pending



#### IV.A.2. TRAINING DEVICES

**DEVICE:** 15C13, F/A-18 Part Task Trainer  
**DESCRIPTION:** Device 15C13 consists of an actual F/A18 cockpit which provides simulation of the static and dynamic indications of the aircraft and is capable of being operated in either a ground or flight mode  
**MANUFACTURER:** Gould Simulation System Division (now Contraves)  
**CONTRACT NUMBER:** NA  
**TEE STATUS:** NA  
**TRAINING ACTIVITY:** VFA-122 FRS West  
**LOCATION, UIC :** NAS Lemoore, 09355

QTY REQD	DATE REQD	RFT DATE	STATUS	COURSES SUPPORTED
1	May 82	May 82	Onboard	C-2A-06X1 (Track E-2A-061X) C-2A-06X2 (Track E-2A-062X) C-2A-06X3 (Track E-2A-063X) C-2A-06X4 (Track E-2A-064X)

#### IV.A.2. TRAINING DEVICES

**DEVICE:** 2E7, F/A-18 Weapons Tactics Trainer

**DESCRIPTION:** Device 2E7 is a dual training complex, consisting of two identical training areas and numerous supporting stations and consoles. Each training area consists of an actual F/A-18 cockpit mounted near the center of a large sphere. Simulated images of the sky, earth, targets, and gunfire are projected on the inner surface of the sphere and are viewed by the trainee during the training exercise. The advanced design of the computer image generator permits detail and realism in these visual presentations. Device 2E7 is housed in five rooms and/or areas at a facility. Room 1 is the trainee room, containing the two spheres. Room 2 contains two instructor stations, from where the instructor(s) monitor and control the exercises. Room 3 contains the debrief station where the recorded exercise may be played back for discussion with the trainee. Room 4 contains the computer image generator, which generates video for the presentations, and an equipment monitor console and the interface electronics. Room 5 contains the digital

**MANUFACTURER:** Hughes Aircraft Company

**CONTRACT NUMBER:** NA

**TEE STATUS:** NA

**TRAINING ACTIVITY:** VFA-122 FRS West

**LOCATION, UIC :** NAS Lemoore, 09355

QTY REQD	DATE REQD	RFT DATE	STATUS	COURSES SUPPORTED
1	Jan 00	Jan 00	Onboard	C-2A-06X1 (Track E-2A-061X)
				C-2A-06X2 (Track E-2A-062X)
				C-2A-06X3 (Track E-2A-063X)
				C-2A-06X4 (Track E-2A-064X)
				C-2D-18X1 (Track E-2D-181X)
				C-2D-18X2 (Track E-2D-182X)
				C-2D-18X3 (Track E-2D-183X)
				C-2D-18X4 (Track E-2D-184X)

#### IV.A.2. TRAINING DEVICES

**DEVICE:** 2F132, F/A-18E/F Operational Flight Trainer

**DESCRIPTION:** Device 2F132 is designed for training of crew members and closely simulates the many functions of the aircraft. A mockup of the aircraft's cockpit uses the same controls, instruments, and displays as found in the production aircraft, mission computers and a communication systems control set, identical to those in the actual aircraft, interface data between Training Device computers and the cockpit. The device is used primarily for Pilot Proficiency Tactics, NATOPS and Instrument Flight Checks. Secondary uses are engine turn qualifications, NATOPS training, and flight line fire

**MANUFACTURER:** Honeywell (now Hughes Aircraft Company)

**CONTRACT NUMBER:** N0019-92-C-0060

**TEE STATUS:** NA

**TRAINING ACTIVITY:** VFA-122 FRS West

**LOCATION, UIC :** NAS Lemoore, 09355

QTY	DATE	RFT		COURSES
REQD	REQD	DATE	STATUS	SUPPORTED
2	Sep 02	Sep 02	Onboard	C-2A-06X1 (Track E-2A-061X)
				C-2A-06X2 (Track E-2A-062X)
				C-2A-06X3 (Track E-2A-063X)
				C-2A-06X4 (Track E-2A-064X)
				C-2D-18X1 (Track E-2D-181X)
				C-2D-18X2 (Track E-2D-182X)
				C-2D-18X3 (Track E-2D-183X)
				C-2D-18X4 (Track E-2D-184X)

#### IV.A.2. TRAINING DEVICES

**DEVICE:** 11H103B, Avionics System Maintenance Trainer  
**DESCRIPTION:** The Avionics System Maintenance Trainer (11H103B) simulates the F/A-18 avionics system and is used to demonstrate and familiarize personnel with system components, operating characteristics, maintenance, and troubleshooting procedures. This trainer allows students to practice or interact with normal operation and/or abnormal operations, system checkout, fault isolation, and component identification and location.  
**MANUFACTURER:** Educational Computer Corporation (Pt # 921335002)  
**CONTRACT NUMBER:** N00019-86-C-0207  
**TEE STATUS:** NA

**TRAINING ACTIVITY:** MTU 1038 NAMTRAU  
**LOCATION, UIC :** Lemoore, 66060

QTY REQD	DATE REQD	RFT DATE	STATUS	COURSES SUPPORTED
1	Aug 82	Aug 82	Onboard	C-102-9977 (Track E-102-0623) C-102-9978 (Track E-102-0624)

**DEVICE:** CBT Learning Resource Center  
**DESCRIPTION:** The Learning Resource Center (LRC) functions as a central repository for all training materials delivered on digital media to a schoolhouse. The LRC provides instructional materials such as CAI, ICW, trainee guides, and simulation software for user self-paced, refresher study to supplement formal classroom training. The LRC provides a workbench and development tools for instructors to review, update, and maintain instructional materials. The LRC also functions as an Electronic Classroom for backup or overflow classroom training. The primary components of the LRC subsystem are the Developer Station, user workstations, presentation device, video controller, network, network server, CBT materials, and the Aviation Maintenance Training Continuum System Software Module application program.

**MANUFACTURER:** Boeing Aircraft (Pt # 94108X-XXXX-XX)  
**CONTRACT NUMBER:** N00600-96-D-0193  
**TEE STATUS:** NA

**TRAINING ACTIVITY:** MTU 1038 NAMTRAU  
**LOCATION, UIC :** Lemoore, 66060

QTY REQD	DATE REQD	RFT DATE	STATUS	COURSES SUPPORTED
1	Jan 02	Jan 02	Onboard	C-102-9977 (Track E-102-0623) C-102-9978 (Track E-102-0624)

## IV.A.2. TRAINING DEVICES

**DEVICE:** Computer Based Training Electronic Classroom  
**DESCRIPTION:** The Electronic Classroom provides an effective learning arrangement, which satisfies fire and safety regulations. Attention is paid to the computer screen viewing depth, computer screen  
**MANUFACTURER:** Boeing Aircraft (Pt # 94008X-XXXX-XX)  
**CONTRACT NUMBER:** N00600-96-D-0193  
**TEE STATUS:** NA  
**TRAINING ACTIVITY:** MTU 1038 NAMTRAU  
**LOCATION, UIC :** Lemoore, 66060

QTY REQD	DATE REQD	RFT DATE	STATUS	COURSES SUPPORTED
3	Jan 03	Jan 03	Onboard	C-102-9977 (Track E-102-0623)
				C-102-9978 (Track E-102-0624)
				C-102-9979 (Track E-102-0625)

**DEVICE:** F/A-18E/F Armament System Maintenance Trainer  
**DESCRIPTION:** The F/A-18E/F Armament System Maintenance Trainer provides organizational level maintenance training for the armament system and fault isolation to interfacing systems. It is used to demonstrate and familiarize personnel with system components, operating characteristics, maintenance, and troubleshooting. The trainer allows the student to practice normal operation, system checkout, fault isolation, removal and reinstallation of selected components, and functional test of the armament system, and component identification and location.  
**MANUFACTURER:** Boeing Aircraft (Pt # 921335001)  
**CONTRACT NUMBER:** NA  
**TEE STATUS:** NA

**TRAINING ACTIVITY:** MTU 1038 NAMTRAU  
**LOCATION, UIC :** Lemoore, 66060

QTY REQD	DATE REQD	RFT DATE	STATUS	COURSES SUPPORTED
1	Jul 00	Jul 00	Onboard	C-102-9977 (Track E-102-0623)
				C-102-9978 (Track E-102-0624)
				C-102-9979 (Track E-102-0625)

#### IV.B. COURSEWARE REQUIREMENTS

##### IV.B.1. TRAINING SERVICES

COURSE / TYPE OF TRAINING	SCHOOL LOCATION, UIC	NO. OF PERSONNEL	MAN WEEKS REQUIRED	DATE BEGIN
F/A-18 SHARP Organizational Maintenance	NAS Lemoore, 09355	2	2	Jan 03
F/A-18F SHARP Aircrew Familiarization	NAS Lemoore, 09355	42	42	Jan 03
SHARP Intermediate Maintenance	NAS Lemoore, 09355	3	6	Jan 03

#### IV.B.2. CURRICULA MATERIALS AND TRAINING AIDS

**CIN, COURSE TITLE:** E-2A-061X, F/A-18E/F Fleet Replacement Pilot Category 1 Pipeline

**TRAINING ACTIVITY:** VFA-122 FRS West

**LOCATION, UIC:** NAS Lemoore, 09355

TYPES OF MATERIAL OR AID	QTY REQD	DATE REQD	STATUS
Instructor Guides for F/A-18E/F Aircraft	3	Jul 00	Onboard

**CIN, COURSE TITLE:** E-2A-062X, F/A-18E/F Fleet Replacement Pilot Category 2 Pipeline

**TRAINING ACTIVITY:** VFA-122 FRS West

**LOCATION, UIC:** NAS Lemoore, 09355

TYPES OF MATERIAL OR AID	QTY REQD	DATE REQD	STATUS
Instructor Guides for F/A-18E/F Aircraft	3	Jul 00	Onboard

**CIN, COURSE TITLE:** E-2A-063X, F/A-18E/F Fleet Replacement Pilot Category 3 Pipeline

**TRAINING ACTIVITY:** VFA-122 FRS West

**LOCATION, UIC:** NAS Lemoore, 09355

TYPES OF MATERIAL OR AID	QTY REQD	DATE REQD	STATUS
Instructor Guides for F/A-18E/F Aircraft	3	Jul 00	Onboard

**CIN, COURSE TITLE:** E-2A-064X, F/A-18E/F Fleet Replacement Pilot Category 4 Pipeline

**TRAINING ACTIVITY:** VFA-122 FRS West

**LOCATION, UIC:** NAS Lemoore, 09355

TYPES OF MATERIAL OR AID	QTY REQD	DATE REQD	STATUS
Instructor Guides for F/A-18E/F Aircraft	3	Jul 00	Onboard

**CIN, COURSE TITLE:** E-2D-181X, F/A-18F Combat Capable Weapons Sensor Officer Category 1 Pipeline

**TRAINING ACTIVITY:** VFA-122 FRS West

**LOCATION, UIC:** NAS Lemoore, 09355

TYPES OF MATERIAL OR AID	QTY REQD	DATE REQD	STATUS
Instructor Guides for F/A-18E/F Aircraft	3	Jul 00	Onboard

**CIN, COURSE TITLE:** E-2D-182X, F/A-18F Combat Capable Weapons Sensor Officer Category 2 Pipeline

**TRAINING ACTIVITY:** MTU 1038 NAMTRAU

**LOCATION, UIC:** Lemoore, 66060

TYPES OF MATERIAL OR AID	QTY REQD	DATE REQD	STATUS
Instructor Guides for F/A-18E/F Aircraft	3	Jul 00	Onboard

**CIN, COURSE TITLE:** E-2D-183X, F/A-18F Combat Capable Weapons Sensor Officer Category 3 Pipeline

**TRAINING ACTIVITY:** MTU 1038 NAMTRAU

**LOCATION, UIC:** Lemoore, 66060

TYPES OF MATERIAL OR AID	QTY REQD	DATE REQD	STATUS
Instructor Guides for F/A-18E/F Aircraft	3	Jul 00	Onboard

#### IV.B.2. CURRICULA MATERIALS AND TRAINING AIDS

**CIN, COURSE TITLE:** E-2D-184X, F/A-18F Combat Capable Weapons Sensor Officer Category 4 Pipeline

**TRAINING ACTIVITY:** MTU 1038 NAMTRAU

**LOCATION, UIC:** Lemoore, 66060

TYPES OF MATERIAL OR AID	QTY REQD	DATE REQD	STATUS
Instructor Guides for F/A-18E/F Aircraft	3	Jul 00	Onboard

**CIN, COURSE TITLE:** C-102-9977, F/A-18E/F Avionics Systems (Initial) Organizational Maintenance (Track E-102-0623)

**TRAINING ACTIVITY:** MTU 1038 NAMTRAU

**LOCATION, UIC:** Lemoore, 66060

TYPES OF MATERIAL OR AID	QTY REQD	DATE REQD	STATUS
Instructor Guides for F/A-18E/F Aircraft	3	Jul 00	Onboard
Interactive Electronic Technical Manual System	1	Jul 00	Onboard

**CIN, COURSE TITLE:** C-102-9978, F/A-18E/F Avionics Systems (Career) Organizational Maintenance (Track E-102-0624)

**TRAINING ACTIVITY:** MTU 1038 NAMTRAU

**LOCATION, UIC:** Lemoore, 66060

TYPES OF MATERIAL OR AID	QTY REQD	DATE REQD	STATUS
Instructor Guides for F/A-18E/F Aircraft	3	Jul 00	Onboard
Interactive Electronic Technical Manual System	1	Jul 00	Onboard

#### IV.B.3. TECHNICAL MANUALS

**CIN, COURSE TITLE:** C-102-9977, F/A-18E/F Avionics Systems (Initial) Organizational Maintenance (Track E-102-0623)

**TRAINING ACTIVITY:** MTU 1038 NAMTRAU

**LOCATION, UIC :** Lemoore, 66060

TECHNICAL MANUAL NUMBER / TITLE	MEDIUM	QTY REQD	DATE REQD	STATUS
A1-F18EA-580-500 Flight Incident Recorder and Monitoring System, System Schematics	IETM	2	Jul 00	Onboard
A1-F18EA-600-500 Communication, TACAN, ADF, Electronic Altimeter, and IFF Systems, System Schematics	IETM	2	Jul 00	Onboard
A1-F18EA-630-500 Data Link, Instrument Landing, Radar Beacon Systems, System Schematics	IETM	2	Jul 00	Onboard
A1-F18EA-710-500 Global Positioning System, System Schematics	IETM	2	Jul 00	Onboard
A1-F18EA-731-500 Digital Map Set, System Schematics	IETM	2	Jul 00	Onboard
A1-F18EA-740-500 Weapon Control System, System Schematics	IETM	2	Jul 00	Onboard



A1-F18EA-741-500 Organizational Maintenance System Schematics, Mission Computer System	IETM	2	Jul 00	Onboard
A1-F18EA-742-500 Radar System, System Schematic	IETM	2	Jun 00	Onboard
A1-F18EA-744-500 Forward Looking Infrared System, System Schematics		2	Jul 00	Onboard
A1-F18EA-745-500 Multipurpose Display Group, System Schematics	IETM	2	Jul 00	Onboard
A1-F18EA-770-500 Video Recording and Reconnaissance Systems, System Schematics	IETM	2	Jul 00	Onboard
A1-F18EA-AML-000 Aircraft Technical Documentation List	IETM	2	Jul 00	Onboard

#### **IV.B.3. TECHNICAL MANUALS**

A1-F18EA-GAI-000 General Aircraft Information	IETM	2	Jul 00	Onboard
A1-F18EA-MRC-200 Daily Maintenance Requirements Cards	IETM	2	Jul 00	Onboard
A1-F18EA-NFM-000 NATOPS Flight Manual	IETM	2	Jul 00	Onboard
A1-F19EA-SCM-000 Software Configuration Manual	IETM	2	Jul 00	Onboard
A1-FA18EA-746-500 Navigational Infrared Receiving, System Schematic	IETM	2	Jul 00	Onboard
A1-FA18EA-760-500 Tactical Electronic Warfare Systems, System Schematic		2	Jul 00	Onboard
NA 01-1A-509 Aircraft Weapons System Cleaning and Corrosion Control	IETM	2	Jul 00	Onboard
OPNAVINST 4790.2 series Naval Aviation Maintenance Program (NAMP)	IETM	2	Jul 00	Onboard
SAME Automated Maintenance Environment (AME) User's Manual	IETM	2	Jul 00	Onboard

**CIN, COURSE TITLE:** C-102-9978, F/A-18E/F Avionics Systems (Career) Organizational Maintenance (Track E-102-0624)  
**TRAINING ACTIVITY:** MTU 1038 NAMTRAU  
**LOCATION, UIC :** Lemoore, 66060

<b>TECHNICAL MANUAL NUMBER / TITLE</b>	<b>MEDIUM</b>	<b>QTY REQD</b>	<b>DATE REQD</b>	<b>STATUS</b>
A1-F18EA-600-500 Communication, TACAN, ADF, Electronic Altimeter, and IFF Systems, System Schematics	IETM	2	Jul 00	Onboard
A1-F18EA-731-500 Digital Map Set, System Schematics	IETM	2	Jul 00	Onboard
A1-F18EA-740-100/110 Weapon Control Systems, Principles Of Operations	IETM	2	Jul 00	Onboard
A1-F18EA-740-500 Weapon Control System, System Schematics	IETM	2	Jul 00	Onboard

#### IV.B.3. TECHNICAL MANUALS

A1-F18EA-741-500 Organizational Maintenance System Schematics, Mission Computer System	IETM	2	Jul 00	Onboard
A1-F18EA-742-500 Radar System, System Schematic	IETM	2	Jul 00	Onboard
A1-F18EA-744-500 Forward Looking Infrared System, System Schematics		2	Jul 00	Onboard
A1-F18EA-745-500 Multipurpose Display Group, System Schematics	IETM	2	Jul 00	Onboard
A1-F18EA-LWS-000 Airborne Weapons/Stores Loading Manual	IETM	2	Jul 00	Onboard
A1-F19EA-SCM-000 Software Configuration Manual	IETM	2	Jul 00	Onboard
A1-FA18EA-760-500 Tactical Electronic Warfare Systems, System Schematic	IETM	2	Jul 00	Onboard

**PART V - MPT MILESTONES**

COG CODE	MPT MILESTONES	DATE	STATUS
DA	Achieved Milestone II Decision	FY00	Completed
DA	Performed DT	FY01	Completed
DA	Performed F-18 Demonstration	FY01	Completed
TSA	Conducted analysis of MPT requirements	FY01	Completed
TSA	Developed Initial NTSP	Dec 01	Completed
DA	Stand up ILS CVN 68	Sep 02	Completed
DA	Stand up ILS NAS Lemoore	Nov 02	Completed
TSA	Developed Draft NTSP	Jan 03	Completed
DA	Stand up ILS CVN 70	Feb 03	Completed
DA	Stand up ILS CVN 63	Sep 03	Pending
DA	Begin Fleet Training	FY03	Pending
DA	Perform OPEVAL	FY03	Pending
DA	Achieve Milestone III Decision	FY03	Pending

**PART VI - DECISION ITEMS / ACTION REQUIRED**

**DECISION ITEM OR ACTION REQUIRED**

**COMMAND ACTION**

**DUE DATE**

**STATUS**

No decision items or actions are pending.

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